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CASE REPORT : AMOEBIC ULCERATION OF THE BUTTOCK

STUART J. SAUNDERS, M.B., CH.B. (CAPE TOWN)

Department of Surgery, Groote Schuur Hospital, Cape Town

While invasion of the skin is an uncommon characteristic of the *Entamoeba histolytica*, the specific susceptibility of this organism to emetine and related compounds makes its recognition very important. A case is reported here of amoebic ulceration of the buttock.

M.T., a 29-year-old Native (Barolong) female, was admitted to Groote Schuur Hospital on 6 August 1954, after having been found destitute by a district nurse. The woman presented with a large ulcer on the left buttock which, she stated, had started as a small pustule 2-3 months previously, and broken down and discharged pus; since then it had steadily increased in size. On examination, the ulcer (Fig. 2) was found to have a sloughing base and the edges were lined by whitish heaped-up epithelium showing no signs of healing. There was a foul discharge. Treatment with sulphonamides and penicillin was commenced. The sloughs were cut away and irrigation and dressings with eusol begun. The patient was discharged on 7 August and treatment was continued at a convalescent home and later by the district nurse.

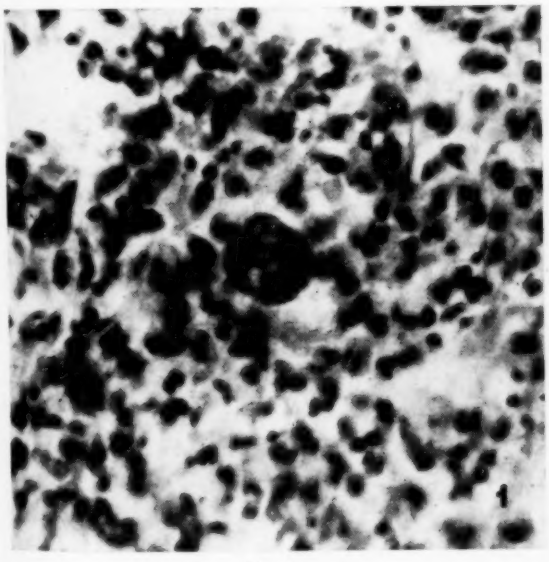

Fig. 1.

Towards the end of August the patient was admitted to the venereal disease ward of the City Hospital for Infectious Diseases, Cape Town, her condition virtually unchanged. The Wassermann and Kahn tests were negative on 2 occasions, the Frei test was negative, and biopsy showed non-specific inflammatory changes. A tentative diagnosis of gummatous ulcer was made, but there was no response to large doses of penicillin, sulphonamide, or aureomycin (15 g. over 10 days). The patient was re-admitted to Groote Schuur Hospital on 21 October 1954.

Careful questioning now revealed that she suffered occasionally from loose stools, which, however, never contained blood or mucus. (Scanty notes from an out-patient attendance in 1949 showed that she had then complained of diarrhoea with blood in the stools.) On examination, she appeared thin, sick and pyrexial, with an ulcer 8 by 6 inches in size, with edges raised and base indurated. Haemoglobin was 6 g.%, white cells 30,000 per c.mm. and serological tests for syphilis again negative. Sigmoidoscopy revealed nothing abnormal. Stools were repeatedly reported free of vegetative or cystic forms of amoeba, while culture of a cervical swab yielded enterococci and coliform organisms. The ulcer swab yielded *M. pyogenes aureus* sensitive to chloromycetin and erythromycin only.

The diagnosis of amoebic ulcer was made on the following grounds: The patient's resistance was not sufficiently low for the ulcer to be due to the non-specific pyogenic organisms isolated, which can cause an ulcer to spread in severe debility; nor was it spreading rapidly enough for such an infection. It was known that the ulcer had been spreading slowly for at least 4 months, and that it had failed to respond to adequate antibiotic therapy. Secondly, the lack of improvement after antibiotics and the repeatedly negative serological tests had made the diagnosis of syphilis unlikely, as also of lymphogranuloma venereum or chancroid. Moreover, the ulcer had none of the features of tuberculous or actinomycotic infection and biopsy revealed none of the characteristic points of these diseases. Finally, the biopsy report did not suggest a neoplasm.

The diagnosis of amoebic ulceration was confirmed by a further biopsy taken from the edge of the ulcer, upon which the Department of Pathology, University

Fig. 2.

of Cape Town (Dr. C. P. Retief) reported: 'Specimen consists of a pigmented piece of skin 2.2 cm. long. Histologically the skin shows marked inflammatory changes with large areas of necrosis. Very numerous polymorphs are present and also many macrophages, together with scanty large vacuolated structures morphologically resembling amoebae' (Fig. 1).

The patient was given daily baths and eusol dressings were applied locally; a high-protein high-calorie diet was instituted, and she was slowly and intermittently transfused with blood until the haemoglobin level was 14 g.%. Emetine was administered (1 gr. daily for 10 days) and chloromycetin to counteract secondary invaders. On this regime the ulcer healed with amazingly rapidity; the emetine was followed by emetine bismuth iodide, 3 gr. *nocte*, and diodoquine, 3 gr. *t.i.d.* for 10 days. On 11 November 1954 stamp skin grafts were laid onto the healing ulcer, and the leg immobilized by means of a plaster spica. The patient was discharged with the ulcer almost completely healed on 25 November 1954.

DISCUSSION

Tremendous destruction can occur in cuticular amoebic ulceration. Manson-Bahr,[1] in discussing amoebic invasion of the skin and subcutaneous tissues, quotes a patient in whom considerable ulceration of the abdominal wall occurred after a colostomy operation had been performed for what was held to be a carcinoma of the rectum. In another case there was ulceration of the abdominal wall and perineum with extensive destruction of the gluteus maximus, which laid bare the coccyx and destroyed the lower part of the rectum; there was no history of dysentery or diarrhoea, but the stool contained amoebic cysts. The result of treatment in both cases was described as 'miraculous'. The case reported here shows that amoebae may not be demonstrable in the faeces either as vegetative or cystic forms, a fact also seen in the case described by Meleney.[2] The subject is also discussed in an article by Engman and Meleney.[3]

It is clear that amoebic ulceration of the skin responds well to emetine; the case reported here certainly responded to nothing else, which gives support to the view that amoebiasis should always be treated with emetine, with or without antibiotics, and never with antibiotics alone. As in the bowel and liver, the essential process is a destruction of the tissues by amoebae, the inflammatory features being due to the secondary invaders.

I should like to thank Dr. N. H. G. Cloete, Superintendent of Groote Schuur Hospital, and Professor J. F. P. Erasmus, former Head of the Department of Surgery, for permission to publish this case. Thanks are due to Mr. D. J. du Plessis for his assistance, and Professor J. G. Thomson, of the Department of Pathology, for permission to publish the microphotograph. I am indebted to Mr. Todt for the clinical photograph and to Mr. McManus for the microphotograph.

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POLIOMYELITIS IN THE UNION

Following are the returns, supplied by the Union Department of Health, of cases notified under the Public Health Act as suffering from Poliomyelitis in the period 15-21 July 1955:

	European	*Non-European*
Transvaal:		
Ermelo District		1
Naboomspruit District	1	
Pilgrimsrest District		1
Total for Transvaal	1	2
Cape Province:		
Cape Town Municipality	1	1
East London Municipality	1	
Total for Cape Province	2	1
TOTAL FOR THE UNION	**3**	**3**

Union Department of Health Bulletin. Report for the 7 days ended 21 July 1955.

Plague, Smallpox: Nil.

Typhus Fever, Cape Province: Two (2) Native cases in the Middledrift district. Diagnosis of both cases based on clinical grounds only. One (1) Native case in the Queenstown district. Diagnosis confirmed by laboratory tests.

Epidemic Diseases in Other Countries.

Plague: Nil.

Cholera in Calcutta (India); Chalna (Pakistan).

Smallpox in Moulmein, Rangoon (Burma); Phnom-Penh (Cambodia); Ahmedabad, Allahabad, Bombay, Kanpur, Kozhikode, Lucknow, Nagpur, Tellicherry, Visakhapatnam (India); Dacca, Karachi; Lahore (Pakistan); Nhatrang (Viêt-Nam); Mogadiscio (Somalia).

Typhus Fever: Nil.

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VAN DIE REDAKSIE

PREDIABETES

Teen die tyd dat 'n peptiese seer pyn veroorsaak, is daardie seer miskien alreeds groot of selfs perforerend; die afwesigheid van simptome beteken nie dat die seer nie daar is nie. Dit was daar—as jy maar net gesoek het. Insgelyks osteoporose. Die uitdunning van beenweefsel duur miskien al 5-10 jaar voordat dit rugpyn of 'n kompressiebreuk veroorsaak. Ook in hierdie geval sou tekens van die siekte, soos bv. 'n negatiewe kalsiumbalans, wel te bespeur gewees het. Voor iemand aan kwaadaardige bloedarmoede begin ly, ly sy nie ook al jare lank—miskien haar hele lewe al—aan 'n uitterende maagslymvlies en kylgebrek nie? Is dit nie altyd die voorafgaande toestand by kwaadaardige bloedarmoede nie? Die onbelangrike pigmentasie word by Addison se siekte eers na baie jare deur die metaboliese verandering gevolg. So ook in die geval van suikersiekte. Dit is eintlik verkeerd om te verklaar dat iemand so pas suikersiekte ontwikkel het as sy nou vir die eerste keer van 'n jeukende vulva kla en glikosurie ontdek word. Heelwat bevindings staaf die bewering dat haar basiese metabolisme al jare lank abnormaal is voordat dit later tot openlike glikosurie oorgaan. Die pasiënt is m.a.w. al lank al ‚prediabeties'. Gedurende hierdie tydperk was daar geen glikosurie nie, maar daar was wel ander kenmerke behorende tot die ‚algemene simptoomgroep van suikersiekte' wat ons van die pasiënt se dreigende siekte kon waarsku. Hierdie ‚bykomende kenmerke' kan veel en merkwaardig verskillende vorms aanneem.

Die mees belangrike van hierdie tekens is die embriopatie, wat oor 'n tydperk van 20 of 30 jaar vóór die moeder klinies ‚diabeties' word, mag strek. Die baba van 'n prediabetiese moeder (soos dié van 'n diabetiese vrou) is groot en ‚Cushing-agtig'—rooi, vet, pap, watersugtig, swak en haal moeilik asem. Hoewel die baba, en die organe in die algemeen, groot is, is hy nie oor-ontwikkel nie en ageer hy selfs soos 'n vroeggebore kind. Dit gebeur maar te dikwels dat die fetus op 37 weke sterf en dood gebore word, of binne 48 uur na geboorte doodgaan, dikwels met hialienvliessiekte. Sommige gesaghebbendes begin nou dink dat 'n prediabetiese kondisie die algemeenste oorsaak is van doodgeboortes wat andersins nie verklaar kan word nie. Veral as die baba groot is, is hierdie diagnose hoogs waarskynlik. Sulke babas weeg dikwels meer as 10 lb.—selfs soveel as 15 of 16 lb. Dit blyk dat omtrent 30 persent van die babas van vroue wat later suikersiekte ontwikkel, by geboorte meer as 10 lb.

EDITORIAL

PREDIABETES

By the time a person suffers pain from his peptic ulcer it may be already large, even already perforated; it has been present but symptomless for a long period. But it was there—had you looked for it. Likewise, before osteoporosis leads to backache or a compression fracture, the bone-losing process has been going on for maybe 5 or 10 years. Again, if you had looked for signs of this they were there, exemplified by a negative balance for calcium. Before a person suffers from pernicious anaemia has she not had an atrophic gastric mucosa with achylia for years?—maybe all her life? Is this not a pre-pernicious anaemia state? In Addison's disease the unimportant pigmentation often precedes the metabolic alteration by many years. Similarly in diabetes. It is really incorrect to say that someone has just become diabetic, meaning she is complaining for the first time of an itching vulva and is found to have glycosuria. A good deal of evidence indicates that she has really had the basic abnormal metabolic process for many years, which only later manifests itself as an overt glycosuria. In other words she has been 'prediabetic' for a long period, during which time glycosuria was not present but nevertheless there were other features belonging to the 'general diabetes syndrome' which might have warned us of her impending predicament. These 'other features' are several and remarkably varied.

Most outstanding in the prediabetic period is the embryopathy, which may extend backwards over 20 or 30 years before the mother becomes clinically 'diabetic'. The baby of the prediabetic mother (like those of the diabetic) is large and 'Cushingoid'—red, fat, flabby, oedematous, weak, and respiring with difficulty. Despite its large size and in fact the generally large size of all its organs, it is not post-mature and actually behaves like a premature. Too frequently it is stillborn, dying round about the 37th week, or it succumbs within 48 hours of birth, often with hyaline-membrane disease. Some authorities are beginning to think that prediabetes is the commonest cause of otherwise unexplained stillbirths, and if the baby is also large the diagnosis

weeg. Baie diabetiese vroue het 'n kraamgeskiedenis van reusebabas en herhaalde doodgeboortes.

Daar is twee belangrike patologiese kenmerke van die inwendige organe van so 'n doodgebore baba. Die eilandjies van Langerhans in die milt is vergroot, soms tot 'n verbasende mate, vergeleke met dié van 'n kind wat weens ander oorsake dood gebore word. (Eienaardig genoeg kom hierdie vergroting ook soms in die milt van 'n eritroblastiese baba voor.) Van Beek[1] het afdoende bewys gelewer dat hierdie buitengewone verskynsel in werklikheid bewys dat die moeder prediabeties is. Van Beek het die gevalle van verskeie moeders van sulke doodgebore babas nagespoor en uitgevind dat hulle later openlik aan suikersiekte begin ly het. Die tweede patologiese kenmerk is tekens van geweldige bloedvormende aktiwiteite in die lewer.

Die verborge neiging tot suikersiekte word gedurende swangerskap ook op ander maniere ontmasker. Glikosurie is nie altyd onskadelik nie. Dit mag 'n tydelike vermindering van suikerdulding met hiperglisemie aandui, wat ná die swangerskap verdwyn. Dit word gemeen dat miskrame, ‚bloedvergiftiging', oormatige vrugwater en aangebore abnormaliteite by die baba meer dikwels by die prediabetiese swangerskap as by 'n normale een voorkom. Sheldon[2] het opgemerk dat vroue wat later suikersiekte ontwikkel uiters geneig is om na die geboorte van 'n besondere baba vinnig vet te word, selfs al was dit nie die geval tydens of ná 'n ander swangerskap nie.

Swangerskap is nie die enigste moontlike faktor wat ‚tydelike suikersiekte' by 'n prediabetiese vrou kan veroorsaak nie. Akute stafilokokkebesmetting (bloedvinte en karbonkels), behandeling met ACTH of kortisoon, Cushing se sindroom, en miskien ook oormatige skildklierwerking en akromegalie, mag ook vir ‚tydelike suikersiekte' by 'n prediabeties vrou verantwoordelik wees. Dit is al bv. bewys dat onder hierdie omstandighede suikersiekte veel meer dikwels in die families van pasiënte wat later diabeties word voorkom as wat andersins die geval is. Hierdie stelling bewys duidelik dat daar wel 'n ‚vatbaarheid' was by pasiënte wat later diabeties geword het.

Die veranderings van die bloedvate wat met suikersiekte gepaard gaan moet ook vermeld word. Soms mag retinopatie, slagaarverstopping in die ledemate deur siekte, of hartkramp weens inspanning (veral by vroue) as die eerste kentekens in die ‚algemene simptomegroep van suikersiekte' voorkom. Veranderings in die kaliber, rigting en deurdringbaarheid van die klein bloedvaatjies in die oogbindvlies kom in die prediabetiese fase voor.

As daar wel suikersiekte in die familie voorkom, kan dit 'n goeie leidraad wees en sterk dit die moontlikheid van prediabetes in 'n persoon by wie dit weens ander simptome vermoed word.

'n Vermoede van prediabetes kan dikwels, veral gedurende swangerskap,[1] gestaaf word deur 'n noukeurige toets van die glukosedulding.[3] Die kurwes mag nie definitief diabetes aandui nie, maar is nogtans abnormaal; hulle toon oor die algemeen 'n volharde vermeerdering in die 2- en 2½-uurlikse bloedsuikerhoogtes aan. Kortisoon en ACTH is al gebruik net vóór die herhaling van hierdie duldingstoetse in 'n poging om 'n

can be made with a high degree of probability. In weight these babies are very often over 10 lb. and may reach 15 or even 16 lb. It would appear that some 30% of babies born to women who later become diabetic are actually over 10 lb. in weight at birth, while many diabetic women give an obstetric history of repeated giant babies and multiple stillbirths.

There are two outstanding pathological features of the internal organs of such a stillborn baby. The islets of Langerhans in its pancreas are hypertrophied, sometimes startlingly so, compared with those in a stillbirth due to other causes (except that, strangely, the pancreas of an erythroblastotic infant may show a similar appearance). That this odd phenomenon is really evidence of prediabetes in the mother has been conclusively shown by van Beek[1] who has followed up several of the mothers of such stillborn infants and found that they eventually did become overtly diabetic. Secondly, the liver shows evidence of immense haemopoietic activity.

During pregnancy the latent diabetic tendency may be unmasked in other ways. Glycosuria is not always innocent and may indicate a temporary diminution of sugar tolerance with hyperglycaemia, which cannot be found after the pregnancy is over. It has been claimed that miscarriages, 'toxaemia', hydramnios and congenital abnormalities in the infant are more common in the prediabetic pregnancy than usual. Sheldon[2] has pointed to a remarkable tendency to gain rapidly in weight immediately after the birth of one particular baby in women who later become diabetic, even though during the pregnancy and after other pregnancies no such phenomenon occurs.

Pregnancy is not the only potentially 'diabetogenic' agent which can produce a 'temporary diabetic state' in a prediabetic subject. Acute staphylococcal infections (boils and carbuncles), treatment with ACTH or cortisone, Cushing's syndrome, and possibly hyperthyroidism and acromegaly, may also act in this way. It has been shown, for instance, that in these conditions a diabetic family history is obtained much more frequently amongst those patients who become diabetic than in those who do not. This plainly indicates that a 'predisposition' already existed.

Vascular changes associated with diabetes should be mentioned. Sometimes retinopathy, arterial occlusive disease in the limbs, or angina pectoris of effort, may occur (particularly in women) as the first features of the 'general diabetes syndrome'. Alterations in the calibre, course and permeability of the small blood vessels in the conjunctiva have been described in the prediabetic phase.

Finally, the family history may be helpful, and if positive certainly adds to the likelihood that prediabetes is present in a person in whom it is suspected on other grounds.

It is frequently possible to confirm one's suspicion of prediabetes by performing a careful glucose-tolerance curve,[3] especially during pregnancy.[4] Such curves are not frankly diabetic, but nevertheless are abnormal, showing most commonly a persistent raising of the 2-hour and 2½-hour blood-sugar level. Cortisone and ACTH has been used just before repeating such toler-

grootliks verminderde dulding in die hand te werk. Hierdie metode van ‚meer gevoelig maak' moet egter nog as eksperimenteel beskou word.

Die prediabetiese toestand kan in opsomming beskryf word as algemeen, langdurig, en belangrik; dit lei tot veelvoudige buitengewone verskynsels en kan dikwels sekuur vasgestel word.

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ance curves in the attempt to produce more grossly diminished tolerance, but this method of 'sensitization' must still be considered experimental.

To sum up, it may be stated that the prediabetic state is common, long lasting, important, productive of multiple strange phenomena, and frequently capable of being diagnosed with fair certainty.

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THE CENTRAL AFRICAN JOURNAL OF MEDICINE

In the centenary of the year in which Dr. Livingstone discovered the Victoria Falls, and in the year of the creation of the Federation of Rhodesia and Nyasaland, medical enterprise in Central Africa has established its own medical journal, published in Salisbury. The bi-monthly *Central African Journal of Medicine*, which first appeared in January 1955, is a bold and courageous effort by a group of Rhodesian doctors to provide a local medium of expression for the medical fraternity of Central Africa. Our own *South African Medical Journal* has published many interesting and important papers emanating from the Rhodesias, and the *East African Medical Journal*, now well past its quarter century, has received some as well; many have gone to medical journals overseas. The editor of the *Central African Journal of Medicine* and his Board wish now to concentrate the various and unique aspects of Central African disease in a home publication.

From the first 4 numbers which have so far appeared it is clear that a high standard is being aimed at, both in the quality of the articles and the elegance of the publication, and that an effort is being made to maintain its distinctive nature. A special series on 'The Fevers of Africa' and articles on Native medical customs lend a tropical slant which is symbolized by a cover carrying the familiar figure of David Livingstone.

South African medicine has a direct interest in the new journal. The Southern Rhodesian Medical Association (B.M.A.) has a similar origin in its relation to the British Medical Association as has the Medical Association of South Africa. The Southern Rhodesian Association consists of 3 Branches of the B.M.A., but until 1910 doctors in Rhodesia still fell within the Griqualand West Branch. Moreover, the 3 members of the Editorial Board of the new journal are South African-born men who qualified in medicine at one or other of the South African universities and then chose to settle north of the Limpopo. The *Central African Journal of Medicine* owes its foundation to their enterprise. It is a non-profit-making venture, the proceeds of which will be devoted to building a library for the medical school which may one day arise at the University of Salisbury. The *South African Medical Journal* welcomes its new colleague from a neighbouring territory and wishes it a successful and fruitful life.

WHEN TO CONSERVE THE GALL-BLADDER

A. LEE MCGREGOR, F.R.C.S. (ENG.), M.CH. (EDIN.)

Consulting Surgeon, General Hospital, Johannesburg, and Honorary Research Associate, Department of Surgery, University of the Witwatersrand

The operation of cholecystectomy may be defined as the removal of the entire gall-bladder together with the cystic duct up to ¼ inch of its junction with the common hepatic duct. The procedure is a satisfactory one in most cases. The mortality is about 1%. In persons who have suffered from gall-stone colic, complete relief is obtained in 70% of cases; 30% will continue to have a gall-bladder type of dyspepsia. In cases where colic is not a feature and the patient suffers from flatulence, fulness or other dyspeptic symptoms, the results of operation are much less gratifying: 70% continue to have symptoms while 30% are cured. The experienced surgeon therefore avoids operation unless the indications for it are clear. It is unwise to operate on a gall-bladder merely because filling with the dye is reported on as being poor, and there is no indication for removing a normal gall-bladder.

There is no such entity as an innocent gall-stone; gall-stones should always be removed. Their presence is secondary to disease or impaired function of the gall-bladder. Their removal therefore implies cholecystectomy. Even the single cholesterin stone, which was at one time considered to be innocuous, can, if left *in situ* for sufficiently long, produce inflammation or carcinoma of the gall-bladder.

There are, however, certain circumstances when the

patient's interests are better served by leaving all or part of the gall-bladder *in situ*. Such incomplete surgery may be necessitated by: (*a*) General conditions, (*b*) local conditions in relation to the gall-bladder, and (*c*) neighbourhood conditions in relation to (i) the bile ducts or (ii) the choledocho-duodenal sphincter.

A. GENERAL CONDITIONS

1. *The General Condition of the Patient*

It may so happen that while the general condition of the patient necessitates operation, the state of the heart or other co-existent condition renders minimum interference advisable. A case in point is that of an elderly woman with gravely impaired cardiac function who is suffering from frequent attacks of biliary colic or an obstructed gall-bladder. Drainage of the gall-bladder after removal of stones etc. is advisable.

2. *The Condition of the Patient at the time of Operation*

Gall-stones may co-exist with some condition which requires major surgery, e.g. hysterectomy for uterine cancer. The state of the patient at the end of the pelvic operation may require simple gall-bladder drainage alone. Another example is that of the patient with hiatus hernia requiring transthoracic repair. If anything at all is done for gall-stones at the time of operation it may be merely cholecystostomy. The acute abdomen may present similar problems when the existence of gall-stones complicates an operation undertaken for, say, a pelvic condition such as ruptured ectopic pregnancy.

3. *The Future Well-being of the Patient*

It happens sufficiently often to warrant notice that gall-stones co-exist with some condition requiring gastrectomy. Regurgitation of bile often occurs after gastrectomy, either in the immediate post-operative period or later. Usually it is of little importance—just the occasional regurgitation of a small amount of bile. This is because the afferent loop—duodenum—acts as a bile reservoir and some time elapses before physiological co-ordination of the bowel related to the anastomosis is established. Should the gall-bladder be removed at the time of the gastrectomy, the flow of bile into the duodenum is greatly increased owing to loss of the concentrating power of the gall-bladder. Its removal transforms the duodenum and bile ducts, intra-hepatic and extra-hepatic, into a great lake of bile, which increases the risk of bile regurgitation occurring after operation. It is, then, wise to take careful heed of the condition of the gall-bladder, the age of the patient, and the reason for the gastrectomy, before deciding on the treatment of the gall-bladder. In many cases it will be expedient to be content with removal of the stones and drainage of the gall-bladder.

B. LOCAL CONDITIONS IN RELATION TO THE GALL-BLADDER

It is rarely necessary to operate on the acute gall-bladder. Acute inflammation of this organ is never a middle-of-the-night emergency like the acute appendix. The gall-bladder does not perforate before the 5th day after the onset of acute inflammation. The patient can therefore be treated conservatively and the general condition improved. A good working rule is this: Should the patient show no signs of betterment within 48 hours of admission, operation should be considered. The vast majority of cases improve without surgery. It is none the less necessary to remove the diseased organ when inflammation and oedema have subsided. The usual time is 6 weeks after the acute attack has passed. It is particularly necessary to watch old people carefully, for they are the cases which tend to perforate. The clinical signs may be misleading, because the responses of age are less active than those of youth. Should operation be called for, it is usually possible to remove the gall-bladder.

1. Should the general condition of the patient give cause for concern, then the gall-bladder should merely be drained. The surgeon must ensure that stones are evacuated and that there is no stone producing obstruction.

2. Should the condition or situation of the acutely inflamed gall-bladder be such as to render its removal hazardous, then it is wise to do the lesser procedure of cholecystostomy. The surgeon's first duty is to save life—more ambitious surgery may never become necessary, or can be done when circumstances are less unpropitious.

3. Should the surgeon's experience in gall-bladder surgery be limited, he may be well advised to be content with gall-bladder drainage.

The writer was asked by a colleague to see his mother, who had been suffering severe upper abdominal pain with temperature and rigidity below the right costal margin. She was over 80 years old and very frail. When the consultation took place the sister-in-charge produced a dozen gall-stones the size of peas, with projecting spikes like *dubbeltjies*. The patient had extruded these through the scar of a cholecystostomy opening made in 1895 by Sir Kendal Franks. She recovered rapidly.

Staunch ally, however, as the *vis medicatrix naturae* usually is to the doctor, it cannot as a rule be expected to do the actual surgery.

C. NEIGHBOURHOOD CONDITIONS

1. *In Relation to the Bile-ducts*

It has been stated on authority times without number that the surgery of the bile-ducts may be the most difficult of all types of surgery. This is borne out by the extensive series of reported cases from many parts of the world of injuries to the common bile duct. Of cholecystectomy Lahey[1] has written: 'This is so trite that I blush every time I say it, but we ought to concentrate on giving more attention to publicizing how dangerous cholecystectomy is. We realize that cholecystostomy has been almost abolished, but thousands of cholecystectomies are being done every day and each one is a possible stricture. If the patient died instead of recovering after injury to his ducts, in many cases he would be better off than to live with what he has to go through in the way of expense and suffering. We should publicize the fact that cholecystectomy is a dangerous

operation. It is dangerous unless one realizes how important it is to control the blood supply, to demonstrate definitely the anatomic relationship, and to realize that anomalous anatomy is very common. I believe we could do nothing better than to write more and more on the need for accuracy in cholecystectomy.'

To circumvent the dire catastrophes attendant on gall-bladder surgery, there have been laid down certain rules for guidance in the operation of cholecystectomy. These are mandatory if disaster is to be avoided. One of these laws is that the anatomy of the bile ducts must be clearly exposed before any structure is divided. It follows that if this objective cannot be attained then no structure should be cut unless the operator is positive that the procedure he follows is in the interests of the patient. If, as is so often the case in long-standing pathology of the gall-bladder, the structures in the right border of the lesser omentum are so glued together that their dissection might result in injury to important ducts or essential blood-vessels, then the surgeon is serving the best interests of his patient by doing only as much as does not jeopardize life—*re infecta*, as the Latins would say. Cases coming into this category are those where the attack on the gall-bladder cannot be initiated at the cystic duct and because of the density of periductal fibrosis which renders the risks considerable. The writer has for many years practised and taught that the dissection should be retrograde, commencing at the fundus. By so doing no important structure is divided until the anatomy has been laid bare. Furthermore, as the operation proceeds, the gall-bladder becomes a valuable 'handle' for bringing deeper tissues into view.

The wisdom of being content with *incomplete cholecystectomy* can only be decided on when the gall-bladder has been freed from liver and adherent structures. As the dissection proceeds medially a point is reached where tissues will not separate from gall-bladder or ducts. In the absence of absolute indications for duct exploration, such as stone or stricture, the procedure should be as follows:

The liberated gall-bladder is split lengthwise, stones etc. removed, and a lead probe passed into the cystic duct. With this guide it may be possible to continue the liberation further. Often this is inadvisable because of uncertainty as to the position of essential structures. Sometimes no instrument will enter the duct. In such cases, having made sure by palpation that no stone is left in the cystic duct, the gall-bladder is amputated up to that point to which it has been dissected free. Only then, as a rule, will the cystic artery be found indicating its presence by bleeding. The vessel is secured, usually by under-running with a No. 40 linen suture on a small needle. The mucus membrane in the small remaining stump may then be destroyed by a cautery or curetted away. The remaining wall of the gall-bladder or duct remnant is sutured with non-absorbable interrupted sutures and a corrugated drain put into the hepato-renal (Morison's) pouch. The omentum or other fat is brought in contact with the stump, for in these cases the peritoneum is so involved in the fibrosis that it does not permit of mobilization.

In an experience extending over many years the author has utilized this procedure on many occasions. In none has there been cause for regret over the incomplete cholecystectomy, and in no case to the writer's knowledge has a further operation been necessary. Gall-bladders may re-form from remnants left *in situ* and cystic stumps have been reported as being the cause of recurrent symptoms, but no such complication has been met in the type of case described above. It is well recognized that the more severe the gall-bladder pathology, the greater the benefit attendant on carefully planned surgery.

2. *In Relation to the Choledocho-duodenal Sphincter*

There are several conditions under which it may be wise to retain a gall-bladder which, though perhaps not normal, is not grossly diseased and does not contain calculi:

(*a*) *Cancer of the head of the pancreas or the ampulla of Vater.* Whether radical surgery is exhibited or not, the gall-bladder forms a valuable ally in an internal bile-drainage procedure.

(*b*) *Stones in the common bile-duct.* Over 90% of common-duct stones are formed in the gall-bladder. Cases do occur where stones and a deposit like thick mud occur in the common duct. Because of a chronic cholangitis there may be narrowing of the sphincter at its lower end, with jaundice. The gall-bladder may be free of stones, though not quite healthy because of an associated low-grade cholecystitis. The underlying pathology is probably a metabolic disturbance leading to increased concentration of the bile, which is one of the causes of inflammation of the bile passages. These are terrible cases. Clearing the bile-duct of debris, and drainage by T-tube after dilating the sphincter of Oddi, is followed sooner or later by recurrence of the condition, until ultimately an anastomosis of distended bile-duct with jejunum is necessitated by complete stricture of the sphincter. In these cases, fortunately rare, the surgeon may well consider leaving the gall-bladder *in situ* so that, should the sphincter become obliterated, the gall-bladder may be used as a by-pass for the passage of bile.

(*c*) *Pancreatitis.* This condition may or may not be associated with disease of the bile passages. When the gall-bladder is grossly diseased, its removal is necessary; when it is not, it should be retained as a possible future ally. In many of these cases there is narrowing of the choledocho-duodenal sphincter which requires dilatation or sphincterotomy. Contraction may again occur and the presence of the gall-bladder supplies a simple means of dealing with the obstruction.

The writer has on several occasions found the association of recurrent attacks of subacute pancreatitis with a narrow sphincter and otherwise normal gall-bladder and bile-ducts. Why the sphincter should be narrow is unknown. In this type of case there is no indication to interfere with the gall-bladder; its presence may well be the solution in future stricture.

SUMMARY

A number of conditions are described where the retention of part or the whole of the gall-bladder is in the best interest of the patient.

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'DELAYED' SPLENIC RUPTURE

A CASE REPORT AND REVIEW OF LITERATURE

P. HELMAN, M.B., CH.B. (CAPE TOWN), F.R.C.S. (ENG.)*

Cape Town

Traumatic rupture of the spleen is not a clinical rarity. Its increased incidence is accounted for, not only by improved standards of diagnosis, but also by the ever-increasing number of transport and industrial accidents. Wright and Prigot [1] found traumatic rupture of the spleen in one out of every 666 accidents admitted to the Harlem Hospital in New York City. At the University Hospital, Columbus, Ohio, it occurred in one out of every 920 accident admissions of all types.[2]

The clinical picture of patients with rupture of the spleen may be perplexing and may range from sudden death to features suggestive of an intra-abdominal haemorrhage. On the other hand, obscure abdominal signs and symptoms may appear suddenly, for no apparent reason, and they may last for hours, days and even weeks before medical advice is sought. It is important to bear in mind the possibility of rupture of the spleen in these patients, who may have forgotten the initial injury. Direct questioning may remind the sufferer of some trivial accident which could have preceded a 'latent period'.

CASE REPORT

Male, aged 28, a carpenter, admitted to the Hammersmith Postgraduate Hospital on 23 January 1955 complaining of upper abdominal pain. Nine hours before admission, while sitting in a chair soon after lunch, he was suddenly seized with severe epigastric pain. The pain was continuous and radiated through to his back. Pain in the left shoulder came on soon afterwards. The characteristic features of both these pains were unchanged when seen in the ward. The pains were aggravated by movement and not by breathing. He was not nauseated nor did he vomit. His bowels had acted normally that morning and he had no urinary symptoms.

There was no previous history of note: no indigestion.

On Examination. Temperature 97·8°F. Pulse rate 100 per minute. Respiration 30 per minute. Blood pressure 140/80 mm. Hg.

The patient looked drawn and pale, lying still in bed and holding his upper abdomen.

The abdomen was not distended, but generally tender, especially in its upper half. Tenderness was also found in the left loin. Involuntary rigidity was marked in the upper abdomen. Peritoneal rebound tenderness was not a striking feature. Bowel sounds were present but diminished. No abdominal swelling was palpable.

Straight X-ray examination of the abdomen revealed no gas under the diaphragm, and no distended loops.

White blood-cells 14,000 per c.mm. No abnormality found on examination of the urine.

Operation (10 hours after the onset of symptoms). Mid-line upper abdominal incision. A large amount of blood was present in the general peritoneal cavity. A large subcapsular haematoma was seen on the convex surface of the spleen (Fig. 1) and from this site bleeding was profuse. Splenectomy was performed. No peptic ulcer was found.

Immediately after the operation the patient developed a left basal collapse with a small pleural effusion but, with breathing exercises and adequate physiotherapy, he made a rapid and complete recovery.

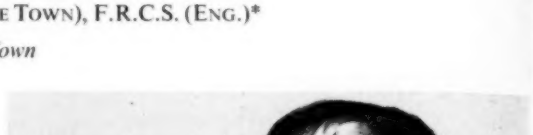

Fig 1. The spleen with the thin-walled and baggy subcapsular haematoma prominent on the costal surface.

The Spleen. The subcapsular haematoma extended from one pole to the other, practically enveloping the splenic costal surface. The spleen was of normal size, shape, colour and consistency. The cut surface (Fig. 2) showed a central haemorrhage which had extended through the substance of the spleen to its surface. It was presumed that the bleeding had commenced within the splenic substance and had gradually ploughed its way towards the surface. The bleeding then reached the subcapsular space, which ruptured because of increased tension and it presumably was this latter episode which evoked the first symptoms.

Histological examination revealed a normal spleen with the recent intrasplenic and subcapsular haemorrhage.

The day after the operation, on direct questioning, the patient

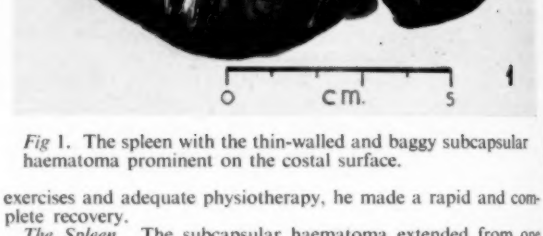

Fig. 2. Cut surface of the spleen. Note the intrasplenic haemorrhage extending through to the subcapsular space. A smaller pulp haemorrhage can be seen to the right.

* Formerly of the Department of Surgery, Hammersmith Postgraduate Hospital, London.

admitted and remembered that 14 days before admission he had suffered a 'minor' abdominal injury. A large object weighing 3 lbs was thrown at him from a distance of a few feet. It hit his abdomen and knocked him backwards. The accident caused only slight and short-lived pain, soon to be forgotten and not followed by any discomfort or cramp right up to the time of his abdominal catastrophe. As far as the patient was concerned, the pain came like a bolt out of the blue, when before that he was feeling 'as right as rain'.

REVIEW

The spleen is a well-protected organ, It is shielded by costal cartilages, diaphragm, liver and coils of intestines, and these structures soften any blow in its direction. It is quite mobile, too, on its splenic pedicle and so it is able to retreat in the face of applied force.

The spleen, however, is readily damaged because of the thinness of its capsule and the extreme friability of its pulp. It is particularly treacherous, because it is endowed with a complex design and an exceedingly rich blood supply, so much so that small surface tears may give rise to copious and even fatal bleeding.

The spleen is usually injured by direct force applied to the left upper abdomen, which distorts it or traps it between costal cartilages and vertebral column. Injury causing fracture of the left lower ribs is not infrequently associated with splenic injury and fragmentation of its convex surface sometimes suggests the marks of indentation of ribs.[3] Larghero and Givria[4] found costal trauma in two-thirds of their patients with splenic rupture. Fracture of the left lower ribs occurred in one-quarter of Sir A. McIndoe's series.[5] The more serious splenic injury may well be masked, for a time at any rate, by the rib injury.

Force applied elsewhere to the abdomen may also injure the spleen and this usually happens by virtue of disruption of the splenic hilum—usually as a result of a mobile pedicle tearing off a fixed organ or *vice versa*. Sir G. Gordon-Taylor [6] has also described splenic rupture after blast injuries.

When spleens are more friable, more vascular and fixed by vascular adhesions, the organ becomes extremely vulnerable, not only to external trauma, but to increased intra-abdominal pressure, e.g. coughing, vomiting or straining at stool.[7] It is no wonder, then, that 'spontaneous' ruptures are reported in cases of leukaemia,[8] infectious mononucleosis,[9] typhoid,[10] malaria,[11] and sarcoidosis.[12] Cases of 'spontaneous' splenic rupture have also been reported during pregnancy;[13, 14] when this occurs it may be extremely difficult to distinguish from ruptured ectopic pregnancy and in the later stages from concealed accidental haemorrhage; its extreme gravity may be judged from the fact that of the 28 cases in one series reviewed 15 proved fatal.[13]

When, as in our case, delayed intraperitoneal haemorrhage occurs, the initial injury is often overlooked and the diagnosis may be missed in a high percentage of the cases. McIndoe,[5] reviewing 44 such cases, found in 20 the injury to be severe, in 16 moderately severe and in 7 slight. From one patient no antecedent history was obtained. The injuries were directed to the lower left thorax or upper left abdomen. In one patient the abdomen was struck in the right flank.

The initial injury may result in a varying degree of shock. The patient may collapse, faint or become dizzy only to recover in 10-15 minutes. Generalized or localized abdominal pains usually pass off in a few days. As in our case, a small number of patients may be symptom-free throughout.

Latent Period

This is meant to denote the time interval between the initial injury and the onset of secondary haemorrhage. McIndoe [5] found that in one-half of his cases the period was under 6 days. In one patient it was over 30 days, but in the majority of cases the secondary manifestations occurred within a fortnight. During this period a significant feature was the complaint of a dull, remittent or exacerbating pain in the left upper quadrant of the abdomen. Another suspicious sign mentioned was a persistent tachycardia (up to 100 per min.), particularly if a perisplenic haematoma had formed at the primary rupture.

Strauss mentioned a case (quoted by McIndoe [5]) that presented with features of left basal pleurisy and pneumonia. This is interesting, because our patient developed left basal collapse and effusion immediately after operation. Some authorities mention the rare occurrence of a steadily enlarging swelling in the left hypochondrium (the palpable perisplenic haematoma).

Signs and Symptoms

They are usually those of a fulminating intraperitoneal haemorrhage and may be quite straightforward. They are often ushered in by a fainting attack—so characteristic of ectopic pregnancy. Where the bleeding is less copious the signs and symptoms may be varied and often misleading.

Upper abdominal pain usually comes on suddenly; but the pain may not be localized over the splenic area—it may be generalized or situated in the epigastrium and sometimes even in the left loin. The pain is accompanied by abdominal rigidity. Pain in the left shoulder (Kehr's sign) occurred in 28% of patients reviewed by Byrne.[15] Kehr's sign is often absent when there has been heavy bleeding into the general peritoneal cavity,[1] but may become positive if the patient lies down with the bed raised on blocks. If there is free blood in the general peritoneal cavity, the patient will soon complain of shoulder-tip pain.[16] The presence of the triad of abdominal tenderness, abdominal rigidity and pain in the left shoulder is highly suggestive of a ruptured spleen, particularly when found in the male. In one case recorded, the pain was aggravated by coughing.

Another characteristic feature may be the presence of rapid and shallow respiration. In our case the rate was 30 per minute. The respirations sometimes are pleuritic in nature.

Ballance's sign is not commonly found, and probably because it is not looked for. Wright and Prigot [1] found it in 6 out of 29 cases. Fixed dullness in the left flank will be elicited most easily during the period of expansion of the splenic pouch by blood. McIndoe [5] believes that at some time during the evolution of the clinical picture this sign should be found. Rarely patients may present

with severe vomiting and diarrhoea.[1] Cullen's sign is a very rare finding.

Aids to Diagnosis

The presence of blood in the abdominal tap is said to be an invaluable aid to the diagnosis.[1] In a series of 15 cases the abdominal paracentesis produced positive results in 13. Byrne [15] states that this procedure may be misleading. Burke and Madigan [17] suggest the intravenous injection of colloidal thorium dioxide as of value in X-ray diagnosis; an abdominal film taken 4 hours after this injection will demonstrate perisplenic extravasation of the dye; but many observers feel that it has no practical application. Roettig *et al.*[2] advocate frequent haemoglobin estimations and red blood-cell counts. Scudder's falling-drop method is said to be very effective in the determination of early haemoconcentration in incipient shock and is apparently helpful in making the diagnosis. The white blood-cell count is usually raised.

Webb [18] stresses the importance of a straight X-ray of the abdomen, which will frequently show elevation of the left leaf of the diaphragm and the presence of increased density of the left upper abdomen. O'Neil and Rousseau [19] have demonstrated obliteration of the splenic shadow and dilatation of the stomach, with serrations of the greater curvature. One patient was given some barium and placed in the Trendelenberg position. A persistent gap of about 1 inch was found between cardia and diaphragm, which they held to be a useful sign of the slow type of bleeding from splenic injury.

SUMMARY

1. The clinical features of a case of 'delayed' rupture of the spleen are described.

2. The absence of a history of previous injury is stressed.

3. The literature on splenic rupture is briefly reviewed, and reference made to the difficulties of diagnosis.

I wish to thank Professor Ian Aird and Mr. Ralph Shackman, Hammersmith Postgraduate Hospital, London, for allowing me to publish this case.

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HISTORY OF MEDICINE: MAIMONIDES THE PHYSICIAN*

RABBI DR. J. VAINSTEIN, M.A., B.L., PH.D.

Port Elizabeth

The 750th Anniversary of the death of Moses Maimonides, the great Jewish codifier, philosopher and physician, is being celebrated this year not only in Israel but throughout the Jewish world. Universities have marked this historic occasion with special anniversary lectures in which Maimonides' contribution to civilization's philosophical thinking and scientific knowledge has been appraised and recognized.

However, before coming to deal with Maimonides' personality, it is necessary to give first a brief exposition of Judaism's attitude to Medicine, and of the vast Rabbinic literature containing matter of medical science—sources whence Maimonides and other well-known Rabbinic physicians drew their primary knowledge and basic principles of medicine, and hygiene in general.

THE RABBINIC LITERATURE

The story of this Rabbinic literature begins with the Bible itself, which strives to offer man a composite guide to a way of life leading to the ideal of *mens sana in corpore sano*. Its purpose was to impress upon man in general, and the Jew in particular, the excellent health values of the different hygienic laws and the importance of clean living as a matter of Divine precept. For this reason these health laws—constituting the first Department of Health—were part and parcel of a religious code interspersed incidentally in ancient Jewish writings. Whether these laws are levitical, hygienic, or both, is still a matter of controversy. But two things are certain: (*a*) they are not mutually exclusive; (*b*) the sources of impurity in scripture—disease or death, the disintegrating corpse of man or beast, skin diseases, and disorders in connection with sex-life—have all a physical manifestation. Impurity is equivalent to infection, or the danger of infection; the rules of isolation are to prevent the spread of infection. The procedure of purification bears out the character of disinfection, and the many other sanitary regulations, such as the digging of latrines and the removal of blood from meat, are examples of safeguards to health.

The study of medicine has had its clear encouragement

* From an address delivered to the Cape Midland Branch of the Medical Association of South Africa.

in the Bible; and Israel, in its early development, began to apply itself seriously to the study of this branch of human life.

The Talmud—or the oral law—which is the encyclopaedic store of Jewish literature, consists of scores of volumes collected over many centuries, and was finally edited some 1,600 years ago. It contains the thoughts and the civil and religious laws of the Jewish people—and embraces many aspects of medicine.

One will find there, for example, the correct number of bones in the human body; a valuable account of the main organs of the body, including the correct anatomy of the lobes of the human lung (whereas Salon's version was incorrect).

On the subject of physiology, the Talmud disposed of a fallacy which held credence almost until modern times: Rabbi Eliezer stated categorically that the brain (and not the heart) was the centre of thought and emotion. The rabbis considered disease in terms of structural changes (as in modern pathology) in contradistinction to the humoral theory of Hippocrates. A truly amazing experiment was carried out by two sages (Abba Saul and Rabbi Hisda) to determine the volume of blood in the body. Their estimation proved almost as accurate as the first scientific evaluation by Welker and Haedenheim in 1855, 1,500 years later. The effect of the sight of food in stimulating digestive secretions is acknowledged, and it advises 'eating in lighted places'.

Centuries ahead of contemporary civilization, the Talmud displayed knowledge of the aetiology of disease. The danger of living in damp places with insufficient sunlight is emphasized. Advice is given against the eating of unboiled meat. Expectant mothers are advised to eat eggs and drink milk.

There are numerous references to Dentistry. Many of them coincide with modern dental procedure. Artificial teeth are mentioned in two categories referring to private and National Health schemes respectively. Scaling of teeth is recommended as is the use of a toothbrush.

Volumes in the Talmud are devoted to the sexual functions, whether normal or pathological, of both male and female. There is a whole book dealing with the menstruant, and the woman after childbirth. Its treatment shows an astounding knowledge of minutest medical detail appertaining to the physical manifestations and diseases peculiar to woman. In dealing with this subject Judaism concerned itself to promote sexual hygiene, physical health, marital continence, respect of womanhood, consecration of married life and family happiness. Here, as elsewhere, regulations of religious purity are interspersed with the motives of hygiene and health.

How far the Rabbinic sages advanced in the knowledge of physical science is demonstrated particularly in another tractate (Hullin) which deals with the prescribed ritual method of slaughtering animals and birds. The motive underlying the mode of slaughtering is the swift and painless killing of the animal, with instant loss of consciousness, and the greatest effusion of blood. For this work a learned, trained and skilled man is required who is versed in the detail of the animal anatomy and symptoms of disease.

This Talmudic volume deals with the manner of slaughter, and impresses one by the extraordinary accuracy displayed by the Talmudic teachers in their descriptions of the anatomy of the animal, and the functions of the various organs. They show an extensive knowledge of the various organic diseases and injuries in beasts and birds, and there is an elaborate consideration of fractures.

Jewish writings have assigned to the physician a respected place in the community, and even rabbis were found among their number. At this time Greece and Rome held this profession in low esteem and assigned to it the same standing as barbers, cobblers, butchers etc. In Judiasm there was no Rabbinical court that did not have a physician attached to it to decide on forensic matters. A Jew was advised not to live in a place where there is no doctor. It was Ecclesiasticus who said: 'Honour a physician with the honour due to him, for the uses which ye may have of him. For the Most High cometh, healing, and he shall receive honour of the King. The skill of the physician shall lift up his head; in the sight of great men he shall be in admiration. The Lord hath created medicines out of the earth and he that is wise will not abhor them. Then give place to the physician for the Lord hath created him; let him not go from thee for thou hast need of him. There is a time when in their hands is good success'.

The Talmud makes reference to the existence of a medical association in Palestine—probably the first organization of its kind—and their badge was a palm-branch. Modern history does not even know that some 18-19 centuries ago there was a medical high school situated in the Upper Galilee of the Holy Land, and that there is extant the ancient medical work called *The Book of Medicine, by the Physician Assaf.* This book, which will be published shortly in Israel, contains a wealth of medical history and includes matter of anatomy, physiology, dietetics, pharmacology, zoology, botany and urology.

MAIMONIDES' LIFE

All the aforesaid are mere examples of the formidable medical matter contained in early Jewish writings and it is against this background that Maimonides grew up; it was in this vast sea of literature that he bathed from earliest childhood at the feet of his learned father. Maimonides was born at Cordova, Spain, on 30 March 1135, and while Rabbinic literature was his main subject, he devoted much time, as he grew up, to the sciences of ancient Greece and the medieval Arab world. He studied the natural sciences, mathematics, medicine, metaphysics, philosophy and logic. After escaping from persecution to Fez in North Africa, he arrived eventually, *via* the Holy Land, in Cairo in 1166. He took up medicine as his profession, by which he eked out his livelihood while he continued devoting himself with supreme passion to theology and philosophy. His outstanding abilities in the field of medicine soon gained him—in addition to Great' Eagle', his general title in the sphere of learning—also that of 'Eagle of the Doctors', and in 1185, at the age of 50, he was appointed Court Physician to King Saladin of Egypt. At the same time he declined a similar

offer made to him by King Richard I of England. He seemed, by that time, to have given himself entirely to the medical profession.

From a reply by Maimonides to a Jewish scholar in the Province of France, who wished to meet him, we gain a glimpse of Maimonides' daily life. He writes: 'but with respect to your wish to come here to me, I cannot but say how greatly your visit would delight me .... yet I must advise you not to expose yourself to the perils of the voyage for, beyond seeing me, you would not derive any advantage from your visit .... for the following is my daily occupation. I dwell at Misr (Old Cairo) and the Sultan (Alfadhal) resides at Kahira (Cairo); these two places are two Sabbath journeys (about one mile and a half) distant from each other. My duties to the Sultan are heavy. I am obliged to visit him every day; and when he or any of his children, or any of the women of his harem, are indisposed, I dare not quit Kahira, but must stay during the greater part of the day in the palace. It also frequently happens that one or two of the royal officers fall sick, and I must attend to their healing. Hence, as a rule, I repair to Kahira very early in the day and, even if nothing unusual happens, I cannot return to Misr until the afternoon. Then I am almost dying with hunger. I find my antechambers filled with people, both Jews and Gentiles, nobles and common people, judges and bailiffs, friends and foe—a motley crowd, who await the time of my return.

'I dismount from my animal, wash my hands, go forth to my patients and entreat them to bear with me while I partake of some slight refreshment, the only meal I take in the 24 hours. Then I attend to my patients, write prescriptions and directions for their various ailments. Patients go in and out until nightfall, and sometimes even, I solemnly assure you, until two hours or more in the night. I converse with, and prescribe for them while lying down from sheer fatigue, and when night falls I am so exhausted that I can scarcely speak. In consequence of this, no Israelite can have any private interview with me except on the Sabbath ....'

No wonder that at the age of 51 he frequently described himself as an old and ailing man. Nevertheless, he continued his brilliant literary activities until his 70th year, when he died on 13 December 1204. He was not only a physician to kings and princes, but as Sir William Osler called him, the 'Prince of Physicians'.

The reason why Maimonides chose the practice of medicine was not only as a means of livelihood but as a favourite occupation, since it afforded him the opportunity to devote his life to good deeds, and to become the agent of Providence in bringing relief to man.

Medicine in his early days of life in Spain was a developed science, and it is known that he studied it also from the writings of Hippocrates, the Greek physician of the 4th century B.C.; of Galen, the Roman physician and pharmacist of the 2nd century, who wrote the well-known book *The Medical Oracle of the Middle East*; of Rhazes, Avicenna, the Jerusalemite Al Temimi, and such Arabic authors as Ragdzwan, Eben Miron and others. All these details are indicated in a few brief references in Maimonides' medical and philosophical writings; we have to turn to his *Treatise on Asthma* in order to obtain some information on his very busy and interesting medical career.

His whole approach to medicine was that of 'a man who is a physician', and not as a mere 'plumber of the human body'. Hence his medical philosophy was based on psychological and spiritual foundations. Courtesy to and consideration for the suffering patient was his ideal in life. Of his 69 years of life, 45 years were occupied with theoretical medicine, of which only the last 30 years were spent as a medical practitioner. Even in his philosophical and legal writings one detects the line of thought of the doctor, therapist and hygienist, the feeling of responsibility for human welfare, and a deep understanding of the interdependence of the physical and spiritual in the art of healing. He always lamented the fact—as he expressed it to his doctor pupil, Joseph Ibn Aknin—that he had too little time to read, as one should, books of medicine, 'for you know', Maimonides said, 'how endless and bottomless is this art, and its difficulties for the one who has God in his heart and always speaks the truth, and does not want to say a thing for which he cannot adduce proof'.

Maimonides certainly used experience as well as precedent as his guide; he tested his remedies by actual experiment; he recognized how deeply physical conditions are affected by psychic causes, and maintained, with a strong touch of modernity, that the aim of the doctor is to prevent illness more than to cure it. It was in times of health that the patient might most effectively prepare to meet and conquer the assaults of disease. The doctor, Maimonides maintained, must be true to the meaning of this title, which is that of teacher. He must teach the patient to walk along the path of health.

The famous Arab poet and Khadi, Alsaid ibn Sina Almulk, gave vent to his feeling of admiration when he sang of Abu-Amram's (i.e., Maimonides') greatness as a doctor, in the following ecstatic verse:

> Galen's art heals only the body,
> But Amu-Amram's the body and soul.
> He could heal with his wisdom the
> sickness of ignorance.
> If the moon would submit to his art
> He would deliver her of her spots at
> the time of full moon,
> Complete for her her periodic defects
> And at the same time of her conjunction
> restore her from her waning.

MAIMONIDES' WRITINGS

Preventive medicine was Maimonides' fundamental approach. The first objective must be to watch over one's health; the curing is the secondary task. This explains the fact that in his principal monumental, legal and religious work *Mishneh Torah*, which consists of 14 books, the first book *Sepher HaMada*, the book of Arts, deals in part III with matters of hygiene and preventive medicine. Here are some examples:

1. Man should always eat sitting; he should not walk about, nor ride, tire himself, sweat etc.
2. The day and night are divided into 24 hours. It is sufficient for man to sleep 8 hours; these should be the last 8 hours of the night so that he gets up at sunrise.
3. The following help one's digestion: grapes, figs, pears, berries, melons, cucumbers, tomatoes etc.; these should be eaten

before the main dishes; they should not be mixed with the other food; but one waits until they leave the upper stomach.

4. Honey and wine are bad for children but good for old people, particularly in the winter. Man needs to eat during the summer only 2/3rds of what he requires in the winter season.

5. When one leaves the bath-house he should be dressed and have his head covered so that he catch no cold, and even during the summer he must take good care. He should drink no cold water on leaving the bath-house and certainly not while having his bath.

6. Man should sleep neither on his face nor on his back, but on the side. At first he should lie on his left side, because the liver is on the right and when it rests on the stomach (which is on the left) it warms it and thus hastens digestion; during the night he can turn to his right.

Since Arabic was the spoken language in his day, his medical, as most of his other works, were written in this language. Most of them were translated into Hebrew and Latin. The medical writings of Maimonides (see below) merit considerable praise. They were sufficiently popular to survive the dangerous and dark periods of the Middle Ages. Israeli physicians who have studied his medical works say that the principal ideas contained in them are as sound today as they were in Maimonides' age. They are the fruit of his labour in the maturer years of his life.

The works which he wrote can conveniently be divided into two main sections: (*a*) those which are devoted to a particular subject; (*b*) such as deal with medicine and hygiene in general.

In the first group there is the book on Asthma, which describes the symptoms of the illness and discusses the climatic conditions and the diet suitable for it. He deals with this as with other subjects in a very practical manner. The treatise on Haemorrhoids, one of Maimonides' finest contributions, has been acclaimed as a work with a very modern approach. Until some 6 centuries ago his book on Poisons was used as a text-book, particularly at the School of Montpelier. When I visited the Sorbonne of Paris a few years ago, I was most interested to note at the entrance of its Medical Faculty a plaque depicting Maimonides' treating a patient bitten by a snake. This is a well deserved recognition for his contribution to the science of toxicology. His treatment of this subject, and the principles he enunciates, are not lagging behind modern conceptions. A book which was very popular at the oriental Courts and with leading personalities of his day, was his treatise on Coitus and Aphrodisiacs. It deals with sexual hygiene and discusses problems allied to this subject.

Among the works in the second section must be mentioned two written for the Egyptian royal court, the *Discourse on the Explanation of Fits*, and the *Discipline of Health*. Both are a true expression of his attitude to medicine, and deal in an excellent manner with the mutual influence of body and soul in matters of health and hygiene. Psychosomatic medicine was, in fact, the theme of his medical philosophy. Another interesting and voluminous work is his *Aphorisms*. This book is, in the main, a critical recapitulation of Galen's work, and he devotes many pages to the varied branches of medicine and surgery in their broadest application. Yet another of his works was *The Hygiene of the Soul*. In Europe his works became widely known and quoted.

Maimonides' fame has travelled far and wide and his contribution to medical thought and advancement has left a lasting mark upon its development. He can certainly be classed among the most eminent scholarly physicians that history has produced. His literary place among the makers of medicine, and his name, often briefly referred to as *Dixit Rabbi Moyses*, will be found in many a medical text.

The fundamental principles which guided Maimonides in his medical thinking—as is evident from the above-quoted letter to his pupil Aknin—were common sense, unstinted devotion to his patients, simplicity of treatment, the reciprocity of mind and body, and the patient's ethical and moral mode of living; all of which must fit into the one aim of achieving a healthy mind in a healthy body.

All his works truly express these ideals and they were centuries advanced beyond the way of thinking of his own generation. He laid great stress upon the hygienic way of living and stressed the importance of diet and of physical exercise such as ball games, wrestling and fencing. Public-health problems found attention in his conceptions of town planning, and he recommended dwellings in friendly surroundings; even music and poetry he considered useful to health since they help to create in man happiness and a cheerful mood.

These principles and guides to man's physical well-being characterize his brilliant mind, which shows so much scientific observation, accuracy of treatment, common sense, and logical thinking. He showed a passion for medical truth unfettered by superstitious thinking, and was an intellectual *par excellence*. Maimonides' publications and a number of other works—11 altogether—will be published by the Israeli Medical Association in conjunction with the *Mossad HaRav Cook*.

Maimonides' motto in life was: 'Man should never abandon reason; his eyes are set forward not backward'. To fellow physicians he never ceased to say, 'Know the Lord thy God and serve Him'.

FOURTH COMMONWEALTH HEALTH AND TUBERCULOSIS CONFERENCE, LONDON

At the Fourth Commonwealth Health and Tuberculosis Conference organized by the National Association for the Prevention of Tuberculosis at the Royal Festival Hall, London, on 21-24 June about 1,700 representatives from 60 Commonwealth and other countries attended. A message of loyal greetings from the Conference was sent to Her Majesty the Queen, Patron of the Association, who returned a gracious reply.

The President, the Duchess of Kent, presented the NAPT Philip Medal to Dr. P. V. Benjamin, Technical Adviser on Tuberculosis to the Government of India and President-elect of the International Union against Tuberculosis. This was the first award of the medal, which is being given for outstanding services in the anti-tuberculosis field by NAPT in honour of Sir Robert Philip, founder of the first tuberculosis dispensary.

The Duchess of Kent in her Presidential Address of welcome laid stress on the value of these Conferences in enabling workers

from all parts of the world to pool their ideas and experiences. The same point was made by Dr. Riaz Ali Shah of the King Edward Medical College, Lahore, Pakistan, who added that with modern ease of communications 'no country is safe until all countries are free of this scourge'. The Earl of Home, Secretary of State for Commonwealth Relations, instanced as an example of Commonwealth cooperation the Colombo plan in Ceylon, where under the scheme of technical assistance in 3 years known mortality had been halved and in 10 years the disease should be under control.

PREVENTION OF TUBERCULOSIS

Lord Home also stressed the importance of prevention, and this point was brought out in different ways by a large number of speakers. It applied not only in well developed countries where the disease was relatively under control, but also in countries where tuberculosis was a serious menace. Programmes of treatment should be associated with measures to stop the spread of infection. Dr. Johannes Holm, of WHO, said that tuberculosis was mainly a public-health problem rather than clinical, and that we should concentrate on simple measures of control which could be applied on a mass scale. Dr. P. V. Benjamin said that in India the anti-tuberculosis programme had been drawn up with a special emphasis on prevention by an extensive BCG campaign—already 57 million people had been tuberculin-tested and 18 million vaccinated, and by 1960 the whole susceptible population of nearly 70 million should have been both tested and vaccinated—by public education through propaganda, and very probably by a re-orientation of medical education to lay emphasis on prevention and social medicine, as medical personnel were apt to be more interested in clinical work. The preventive aspect was particularly important in India, because the vast extent of the problem meant that the cost of providing treatment would be enormous.

Housing. Good housing was considered as one of the most important factors in preventing the spread of tuberculosis, and in discussing the problem in Hong Kong, Sister Mary Aquinas, Medical Officer of the Ruttonjee Sanatorium, referred to the enormous influx of refugees from China, and said that adequate housing at an economic rent would do more to lower tuberculosis morbidity than perhaps any other single factor. Mr. J. L. Martin, Architect to the London County Council told how the LCC in its housing programme considers not only architectural values but also the provision of space and air, for example, in the alternating of blocks of flats with small houses. Dr. Hugh Paul of Smethwick, in a paper *Do Death Rates Matter?* while recognizing the spectacular fall in the tuberculosis death rate, was concerned about the large number of notifications in Great Britain, especially in the best years of life, and he gave a warning against relying too much on modern chemotherapy and vaccination and forgetting the fundamental necessities of good housing, good food and good standards of living.

The Outlook. The feeling of the Conference about tuberculosis was one of restrained optimism, and it was generally agreed that with modern medical knowledge and an enlightened public-health policy tuberculosis could be conquered, given energy and determination. Dr. Edward Ross, President of the Canadian Tuberculosis Association, said: 'There are few other diseases of major importance that are subject to such ready and early detection and it is our duty and responsibility to take full advantage of knowledge and technical facilities at our disposal. If we fail to do this and if tuberculosis within the next 25 years has not been reduced to the minor role of many other communicable diseases, we shall be largely responsible'.

But it was also felt very strongly that the present was no time for complacency, even in the most advanced countries, and the Duchess of Portland, Chairman of NAPT, said in her opening address that there were still today in Great Britain ¼ million tuberculous patients and that notifications were nearly a thousand a week. In the same way, Mr. Iain MacLeod, U.K. Minister of Health, referring to the big drop in the mortality rate, to the reduction in hospital waiting lists and to the extension of the mass radiography service, said that all these figures were only milestones on the road but not the end of the journey—'we can draw encouragement from them, but not satisfaction'. The two matters on which he thought attention should be especially focussed were detection, or the tracing of the sources of infection, and team work, not only between all medical personnel—especially general practitioners—but among the whole community.

Backward Countries. The seriousness of the ravages of tuberculosis in many countries was made clear by statements made and figures given by a number of speakers. In India, there were 2½ million sufferers a year, of whom ½ million died, and speaking of the Colonial Territories, Mr. Henry Hopkinson, Minister of State for Colonial Affairs, said that tuberculosis was a major health problem and was regarded as a priority. In certain areas, Mr. Hopkinson continued, the situation had improved by last year, but in Africa the disease was still spreading, possibly owing to the growth of towns and industrial centres. Dr. Olive Robertson, of the new Rhodesian Association for the Prevention of Tuberculosis, said that in one town in Rhodesia one new case of tuberculosis amongst Africans was reported daily.

A point raised by nearly all speakers was the very great value of voluntary anti-tuberculosis organizations, and the importance of educating public opinion, for without the cooperation of all the crusade would not succeed.

MEDICAL SESSIONS

The two medical meetings on 'Differential Diagnosis', 'Tuberculosis and Leprosy' were both crowded, and the papers reached a very high standard.

Differential Diagnosis. Dr. H. J. Trenchard of the Edgware Chest Clinic stressed the need for the complete physical overhaul of the patient in the diagnosis of chest diseases. Dr. Sven Lofgren of Sweden dealt with the relationship between tuberculosis and sarcoidosis. He was followed by Dr. John Hunt, a general practitioner, Mr. Donald Barlow, Surgeon, London Chest Hospital, and Dr. Bo Carstensen of Sweden. Summing up Dr. J. G. Scadding, Dean of the Institute of Diseases of the Chest, Brompton, London, mentioned the increasing frequency of bronchial carcinoma in Great Britain, and said that the deaths in 1953 amounted to nearly twice those from pulmonary tuberculosis. He agreed with the stress laid by other speakers on the importance of obtaining bacteriological confirmation of diagnosis and frequent sputum cultures.

Tuberculosis and Leprosy. 'Leprosy is not a disease apart, it is a general public health problem; public health and not public fears and prejudices should determine leprosy-control policy'. The opening paper by the late Dr. John Lowe, Medical Secretary of the British Empire Leprosy Relief Association, read by Dr. E. Muir, was based on this quotation from the First Report (1953) of the WHO Expert Committee on Leprosy. The failure of compulsory isolation as a control measure in countries with reasonable resources which have maintained it and the impossibility of applying institutional segregation in countries with few resources in money and personnel were discussed. The other speakers included Dr. R. G. Cochrane, Dr. J. Ross Innes, and Dr. Roland Chaussinand of the Pasteur Institute, Paris. They thought that the principles for the control of leprosy should follow the general lines established in the control of tuberculosis. It was pointed out that the tubercle bacillus and the leprosy bacillus show many resemblances morphologically, clinically and antigenically. During the last 14 years the results of treatment of leprosy have improved greatly because of certain drugs originally designed to combat tuberculosis, though not now much used for this purpose. A plea was made for more leprosy research, for closer collaboration between workers in the two diseases, and for coordination of resources, especially in under-developed countries where tuberculosis and leprosy are widely prevalent.

Tuberculosis in Industry. The session on this subject was a joint meeting with the Association of Industrial Medical Officers, and in a stimulating discussion the viewpoints of industrial medical officers, trade union officials, a company director, a chest physician and an industrial nurse were all given. Mr. Desmond Bonham-Carter described the medical supervision provided by Unilever Ltd. On the subject of the resettlement of disabled people in ordinary industry, Mr. Victor Feather, Assistant Secretary of the Trades Union Congress, London, said that the TUC have urged the Ministry of Labour to carry out a survey to assess the employment opportunities for the disabled with a view to extending them considerably. Dr. C. H. C. Toussaint, Consultant Chest Physician at the Willesden Chest Clinic, London, raised the question of infection from immigrants and Mr. Arthur Horner, Secretary of the National Union of Mineworkers, made a spirited

plea for more research on pneumoconiosis, which is a death warrant for many miners.

OTHER ASPECTS OF TUBERCULOSIS

Other special subjects dealt with at the Conference were 'Child Hygiene and Infection', 'The Choice of Drugs in the Medical and Surgical Treatment of Tuberculosis', and 'The Psychology of the Patient and Relatives as a Factor in Successful Treatment'.

BCG Vaccination. Professor Wallgren of Sweden, speaking from many years of experience, said that there was no doubt that BCG vaccination could produce specific immunity of value to infected children, but this was not sufficient to replace other kinds of protection. It was most important to protect infants from family infection, while older children needed protection from outside contacts.

Dr. F. J. Bentley of High Wood Hospital, Brentwood, Essex, emphasized the lack of public interest in the infection of children with tuberculosis. He said that more infection occurred during the winter and gave a warning about the present-day fashion for long winter evenings spent watching television, possibly in crowded, ill-ventilated rooms. He was in favour of treating all young infected children with isoniazid, combined with PAS or streptomycin. He suggested that young patients should not be treated in scattered groups, but concentrated in a few suitable centres.

Choice of Drugs. Many differing opinions were expressed. Considerable attention was paid to the use of isoniazid. Dr. Walsh McDermott of the Cornell University Medical College, U.S.A., stressed the facts that antimicrobial drugs were suppressive rather than eradicative, and that chemotherapy was a long-term treatment. Isoniazid was, in his view, a revolutionary advance in chemotherapy, because it was suitable for domiciliary use and self-administration, thus enabling treatment to be carried on where hospital facilities could not be provided, as, for example, in outlying areas or for long-continued periods of time. The question of drug resistance was important, but although the opinion had been prevalent that isoniazid alone could not be used for long, he himself considered that isoniazid alone was as good as or a little better than streptomycin and PAS. It was really a question of using our available drug capital to the best advantage; possibly, for example, a combination of drugs in hospital and isoniazid alone for domiciliary use. Professor Etienne Bernard of the University of Paris discussed the use and value of the 3 main drugs—streptomycin, isoniazid and PAS—and their various combinations. His own preference was for isoniazid/PAS. Modern chemotherapy had reduced the need for surgical treatment, and in his opinion 9 out of 10 cases of pulmonary tuberculosis of recent origin could be successfully treated by a combination of drugs and rest. Dr. O. F. Thomas of Aintree Hospital, Liverpool, who dealt with drug resistance, said that as there were no satisfactory laboratory methods for measuring the sensitivity of the tubercle bacillus to drugs it was important to know the previous history of drug treatment in any case, and Mr. O. S. Tubbs, Thoracic Surgeon of St. Bartholomew's Hospital, London, spoke on the great assistance chemotherapy gave to thoracic surgery. The Conference heard reports from Dr. Michael Conalty of the Medical Research Council of Ireland, and Dr. Brendan O'Brien of the Meath Hospital, Dublin, on Hinconstarch—a new drug combining isoniazid, thiosemicarbazone and starch.

Dr. O'Brien described the results of a pilot trial in his hospital on a small group of 9 patients. After 3 months all the patients had improved and in 7 of them the tubercle bacilli had disappeared. There were no toxic effects and he felt the drug was well worth a more extensive clinical trial.

A paper by Dr. Frank Retief, Chief Medical Officer of the Witwatersrand Native Labour Association, Johannesburg, gave the first definite report of the effect of INH *per se* on African miners with pulmonary tuberculosis over a period of three months. Dr. Retief considered the results encouraging.

Psychology of the Patient and Relatives. The session on this subject came as a pleasant human interlude amidst scientific considerations. Group-Captain Cheshire, V.C., and Mr. Paul Jennings, both ex-patients, told the Conference of the cheerfulness and courage of even very seriously ill patients, and of how the sense of being needed and being of use was a vital factor in aiding recovery and in giving comfort to those who could not recover. Group-Captain Cheshire described the start of his homes for the chronic sick and told how, when the early patients found that there was practically no staff and that he was trying to do everything himself, they immediately took over such jobs as they could, and as a result improved enormously. Dr. George Day of Mundesley Sanatorium, Norfolk, with sound good sense spiced with humour, spoke of the old days of stigma and concealment and said that although things were very different now there were still emotional reactions amongst patients and relatives which could be robbed of their power to harm by bringing them out into the daylight and matching them with good humour. 'We all know', he said, 'that what keeps us going is a sense of value—a feeling of being wanted, of being worth while. We can help the patient best by fertilizing this deep conviction. It may be difficult. He may be one who feels he has to *do* things to justify his existence. This craving may be partly assuaged by occupational therapy, but he must also learn the dazzling and disarming truth that Being is of a higher order than Doing'. A paper on the Mental Welfare of Children after Tuberculosis Meningitis by Dr. Ounsted and Dr. Honor Smith dealt with the effects of the disease on children from different types of homes and on their parents and on the inter-relation between the two.

Mass Radiography. The Conference devoted considerable time to this subject. Dr. Alexander Mearns of the University of Glasgow, gave a discourse on publicity methods and aims in mass radiography, a topic also dealt with by Dr. A. M. McFarlan of Bristol. Dr. Bertram Mann, Consultant Chest Physician, in a survey of present and past mass-radiography methods, stressed the importance of examining older age-groups and the more overcrowded sections of cities, and suggested that routine X-ray examinations should be instituted of all patients in general hospitals. Dr. H. W. O. Frew described the X-ray survey of school teachers in Renfrewshire, which is part of a national Scottish campaign. There had been no difficulty in getting the teachers to be X-rayed—probably because financial help was available if treatment was necessary.

X-ray and Tuberculin Surveys were discussed at a main session of the Conference, and the experience of different countries offered valuable contrasts. Dr. Harold Trimble of Stanford University, California, felt that while tuberculin surveys are an exact biological procedure and mass X-ray is essentially non-diagnostic, the two are supplementary. Which procedure should be used depends upon the local problem. Dr. E. R. Hargreaves gave a detailed account of the recent X-ray surveys in Cornwall; they showed that 45-50% of the population of a small town may be expected to present themselves for X-ray. School leavers are given special attention in Cornwall; they are offered tuberculin tests, X-ray for those found positive, and vaccination if necessary. A 5-year follow-up is planned. From Canada, Dr. Ross gave a general picture of X-ray and tuberculin surveys in that country. He considered that the periodic examination of apparently healthy people on a community-wide basis by chest X-ray surveys is an essential part of a tuberculosis case-finding programme. In Canada this is supplemented by industrial X-ray surveys, a hospital admission X-ray service, and surveys of other special groups, such as the native Indians and Eskimos. Dr. K. Neville Irvine of the Oxford Regional Hospital Board made the suggestion that detection and prevention could be done at the same time by combining BCG vaccination with X-ray and tuberculin testing. The BCG should be given at the second visit when the tests are read. This system is in operation in Scandinavia.

Meetings were held for members of care committees, for social workers and health visitors, and for sanitorium matrons and nurse teachers.

The Conference Exhibition of 68 stands included a scientific section; a large trade section showing X-ray and sterilizing equipment, medical and surgical instruments, and drugs; an occupational-therapy section; and a rehabilitation section. There were interesting exhibits from Singapore, Aden, the Solomon Islands, Fiji, Hong Kong, Jamaica and Malaya.

After the Conference delegates had many opportunities of visiting hospitals, clinics and sanatoria. Throughout the week there were many social occasions, including receptions arranged by Her Majesty's Government, the Lord Mayor and Corporation of London at the Guildhall, the British Medical Association, the Royal College of Physicians, and the High Commissioner for India.

MEETINGS OF NATIONAL MEDICAL ASSOCIATIONS AT THE WORLD MEDICAL ASSOCIATION IN NEW YORK

The occasion of the British Commonwealth Medical Conference and the Conjoint Meeting of the British and Canadian Medical Associations which were held in June 1955 at Toronto, Canada, was taken to hold a meeting of secretaries of national medical associations at the office of the World Medical Association, New York. The following is an extract from the periodical letter of Dr. Louis H. Bauer, Secretary General, WMA, dated 1 July 1955.

FIRST MEETING OF ASSOCIATION SECRETARIES

Secretaries and their assistants from 5 member associations of the World Medical Association and 2 other medical associations met at the Secretariat on 27 and 28 June.

The first morning of the meeting was devoted to a tour through various Secretariat departments in order to meet the personnel, see their various activities, and hear a brief discussion of the problems involved in each.

Dr. Austin Smith, President of the United States Committee and Executive Editor of the *World Medical Journal* presided over the ensuing discussions. These discussions were largely devoted to considerations of the problems, criticisms and suggestions for providing better cooperation between the national secretaries and the Secretariat. They included problems of documentation, questionnaires, programmes and services in which the national secretaries are most frequently called upon to work with me in accomplishing the objectives of the Association.

From my standpoint this meeting was a tremendous success. The personal contact with these secretaries and the discussions have provided me with many helpful ideas for improving the Secretariat programme. In addition, I had the feeling that the Secretaries appreciated the opportunity to discuss our mutual problems and to have this brief but pleasant personal contact. I especially enjoyed renewing my acquaintance with those I had met before and finally meeting the others. I hope that New Zealand and Ceylon will be applying for membership in the WMA in the near future. Certainly this would be a tangible result of our meeting.

Minutes of the meeting will be prepared and as soon as they are available each national secretary will receive a copy, as the group felt the discussion would be helpful to all national secretaries.

On Monday evening the American Medical Association tendered an informal dinner party for the participants and their ladies. It was held in the penthouse of the Secretariat building and as the weather was fine the terrace of that room proved to be a vantage point for viewing the city.

EVIDENCE GIVEN AT SELECT COMMITTEE ON NURSING AMENDMENT BILL

(FROM A PARLIAMENTARY CORRESPONDENT)

The Report of the Select Committee on the Nursing Amendment Bill was published about a month after the end of the session. As the committee did not complete its work before Parliament was prorogued, the interest in the report is confined to the record of verbatim evidence. This was given on behalf of five bodies: the South African Nursing Council, the Board of the South African Nursing Association, the Provincial Administration of the Cape, the Central Hospitals Committee of that Administration, and the Transvaal Provincial Administration.

Mr. T. H. van Reenen, an advocate who was a member of the deputation from the Nursing Council, submitted an amended Bill which was sponsored by the Nursing Association as well. He contended that further amendments were necessary in view of the great change in medical services since the war years, resulting from the advance of medical knowledge.

He said: 'Whereas we had practically no specific remedies before and during the war, specific remedies have been introduced by the dozen during the past ten years. Medical men can now actually cure many diseases. Consequently the period of hospitalization of many patients has been considerably reduced. Our knowledge and practice of surgery have greatly increased and doctors undertake operations today which they did not even think about 10 years ago. All this progress demands a different approach to the nursing profession. Another development to which we must

adjust ourselves is the tendency all over the world, as a result of money being tight, that medical treatment should if possible be provided at the patient's home and not in a hospital'.

He asked that the Nursing Council should have the power, now possessed by the Medical and Dental Council, to lay down the maximum fees chargeable for private nursing services.

Miss C. A. Nothard, Chairman of the Council, said they had had legal advice that if a nurse under the age of 21 and in private practice gave a patient the wrong medicine her parents would be responsible.

In discussing the subject of training Miss Nothard said the Council had established a new type of mental nurse, the psychiatric nurse. She would be trained in the nursing of mentally defective persons and Standard VIII would be the qualification for the course; nurses who had left school after Standard VI would become auxiliaries. 'When one visits the mental hospitals', she added, 'the authorities tell one that they are now feeling the strain of having staff who have only passed Standard VI before being responsible for the wards.'

Miss M. G. Borchards, Chairman of the Nursing Association, said that, after travelling to other countries, she was satisfied that the training given to South African nurses was second to none in the world. The Association repeatedly received reports on the excellence of South African nurses who went abroad to work in hospitals or to take postgraduate courses.

In reply to Mr. J. W. J. C. du Plessis (M.P. for Bloemfontein City), who asked about remarks by doctors that nurses were being trained to be 'junior doctors', Miss Borchards said: 'Let a doctor in a hospital ward give a nurse some instruction which she cannot carry out, and he is the first to complain to the matron. The tendency at present among medical men is to specialize. The result is that nurses spend their time in specialist wards instead of receiving a basic training.'

Dr. D. van Binnendyk, representing the Cape Provincial Administration as Director of Hospital Services, complained about the application of the 8-hour-day rule for student nurses. 'I have personal experience', he said, 'of a case where a nurse whose shift ended at 5 o'clock was busy with a sick patient at that time, but the matron told her to stop work otherwise the matron would get into trouble.'

Questioned about the Nursing Council's standards of training, he said: 'The training of a doctor today is not the same as that of a doctor 10 years ago, and therefore the training of a nurse cannot be the same as it was 10 years ago either. The Administration feels, however, that the requirements have been raised too high, and that the Nursing Council is trying to make a semi-doctor out of the nurse.'

Dr. F. R. Luke, on behalf of the Central Hospitals Committee of the Cape Provincial Administration, contended that in the attempt to raise the status of the nursing profession, examinations were made much more theoretical and brought into line with medical rather than nursing knowledge.

He explained: 'Nursing is not a parallel profession to the medical profession, but an ancillary one. The duties of a nurse as we see them are to contribute to the comfort, confidence and morale of the patient; to observe a patient and report on his condition; and to carry out such treatment procedure as may be ordered by the doctor. For this purpose an extensive theoretical knowledge is not necessary.'

Dr. J. D. Joubert, another witness for the Central Hospitals Committee, said that nurses were set examination questions of a type that was not necessary for their work. Knowledge of anatomy, physiology, symptoms of diseases and their treatment was very interesting but not really a requirement for a good nurse. Such knowledge could be recognized by a further certificate after more advanced examinations.

In reply to further questions on this subject, Dr. Luke said: 'What we want is a nurse who could take temperatures properly, who could see to it that an oxygen cylinder does not run out, who could make a bed so that the patient is comfortable, and do other work of this nature. We do not want persons who, for instance, know the structure of the kidneys or the pancreas down to the finest details.' He added that Dr. van Binnendyk had frequently made unsuccessful representations to the Nursing Council to the effect that many of the questions put to nurses could not even be answered by doctors. The syllabus laid down for 1953 could also be the syllabus for a doctor.

Mrs. C. Searle, Directress of Nursing Services for the Transvaal and one of the witnesses for the Transvaal Provincial Administration, held a conflicting opinion. She considered nurses had insufficient training in promotive health, auxiliary services and the social and psychological aspect of their work.

'The medical profession', she said, 'is to some extent tied by what its nurses can give in this field. If South Africa wants to take a leading place or hold its own in the medical field it needs very well prepared people. This question of the examination being too technical is sheer nonsense. If a medical specialist is asked to describe the knee joint he will probably be able to write a book on it, whereas the ordinary doctor may be able to write only 30 pages. Similarly a nurse when put this question will answer according to the level to which she has been instructed.'

The Select Committee took a great deal of evidence bearing on representations by the Nursing Council for the separate training and registration of European and non-European nurses, and on proposals for prohibiting non-Europeans from nursing European patients in the course of private practice.

PASSING EVENTS : IN DIE VERBYGAAN

Mr. Charles Marks, M.B., Ch.B. (Cape Town), F.R.C.S. (Eng.), M.R.C.P. (Edin.), of Salisbury, S. Rhodesia, has been appointed by the Royal College of Surgeons of England as Hunterian Professor of the College for the ensuing year. In the course of that year Mr. Marks will be delivering the Hunterian lecture on *Observations on the Surgical Sequelae of Bilharzial Disease*.

Mr. Marks, who is a Fellow of the International College of Surgeons, was educated at a Cape Town high school, qualified M.B., Ch.B. at the University of Cape Town in 1945, and served in resident posts at Groote Schuur Hospital and in surgical posts at that hospital and at the Kimberley General Hospital. After 2 years of general practice in Cape Town he worked for 3½ years in England holding surgical registrar appointments and proceeding M.R.C.P.E. and F.R.C.S. He has been in consultant surgical practice in Salisbury since 1953.

* * *

Dr. M. M. Suzman has returned to Johannesburg from a 2 months' visit to the U.S.A. and Great Britain. Dr. Suzman had been invited to participate in a Conference on *Nutrition in Infections* held by the New York Academy of Sciences and sponsored by Chas. Pfizer and Co, Inc. He also attended and participated in the First International Conference on the *Clinical and Metabolic effects of Meticorten and Meticortelone*, held in New York and sponsored by the Clinical Research Division of the Schering Corporation. In Atlantic City he attended the annual meetings of the Endocrine Society, the Society of Vascular Surgeons, the International Society of Angiology (at which Professor R. H. Goetz of the University of Cape Town was the guest speaker) and the American Medical Association Convention.

Dr. Suzman lectured on nutritional deficiencies to the Bureau of Nutrition, Department of Health of the City of New York at the invitation of its Director, Dr. Norman H. Jolliffe. For a period of 2 weeks, he acted as Chief of Medical Services *pro tem.*, at the Massachusetts General Hospital, Boston, at the invitation of Dr. Walter Bauer.

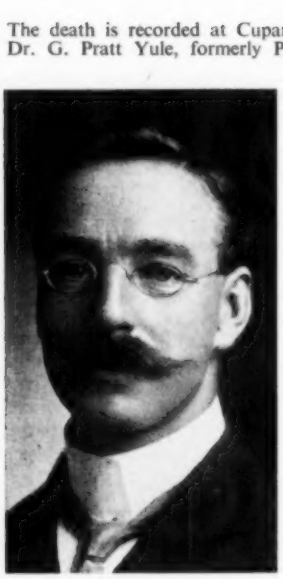
* * *

In the 'Buy South African' advertisement which appeared on pages xiv and xv of the issue of this *Journal* of 23 July 1955 under the sponsorship of the South African Pharmaceutical Manufacturers' Association the name of the Association was incorrectly printed. The correct name is as given in this paragraph.

IN MEMORIAM

GEORGE PRATT YULE, M.D., B.SC. (PUBLIC HEALTH), F.R.C.P. (EDIN.)

The death is recorded at Cupar, Scotland, earlier this year, of Dr. G. Pratt Yule, formerly Principal Medical Officer of the Orange River Colony in the days before Union. Dr. Pratt Yule was 81 years old.



Dr. G. Pratt Yule

Educated at George Watson's College and the University of Edinburgh, Dr. Pratt Yule held various appointments as pathologist at fever hospitals in Britain before volunteering for service in the South African War in 1900. The subject of his Doctorate thesis had been typhoid perforations, and this knowledge stood him in good stead, for enteric fever was rampant among the British troops. As second in command of the Edinburgh and East of Scotland Hospital at Norvalspont on the Orange River, his main task was to deal with this type of patient.

When this hospital was broken up in September 1900, Dr. Pratt Yule was transferred to Bloemfontein, where the Military Governor, Sir George Pretyman, appointed him to be the Health Officer under his command. When civil government was restored to the territory at the end of the year, he remained as Health Officer to the Administration, and in the following year Lord Milner appointed him Principal Medical Officer for the Orange River Colony, a post he held until 1912.

During the 12 years that Dr. Pratt Yule had charge of medical services in the Orange Free State, he made a great contribution to public health and medical organizations. The Colony's Medical Act of 1924 was drafted by him and passed through his enlightened guidance. He was also responsible for measures regulating the admission of medical practitioners, dentists, chemists and druggists, and for the prevention the adulteration of food and drugs.

In his capacity as head of the Public Health Department he sat on the Legislative Council as an official member and served also as Director of Census and Registrar of Births and Deaths in the colony. In 1912 he returned to Scotland as Medical Officer of Health of the County of Fife, a post he held until his retirement in 1938. In this office he initiated many important public health and welfare projects.

Dr. Pratt Yule is survived by his widow, by a son who is a practitioner in Cumberland, and by 2 daughters, one of whom, Mrs. Lawrence, is Professor of Psychology in the University of Natal.

THE LATE T. L. LINDSAY SANDES

Dr. P.C.W.M. writes: Writing as one of a later generation I would like to add my tribute to those already paid to the memory of the late T. L. Lindsay Sandes.

From a first association with him as his house surgeon one's impression was of remote cold efficiency and impatience of slackness. In time one found a remarkable readiness to help—in trouble, he was as approachable as the registrar. Having graduated from the wondering stage of house surgeon to that of maturity, and seen the best in surgical skill in other parts of the world, one appreciated all the more clearly that here was a general surgeon, in the true sense of the term, whose work was not surpassed by anyone in the same field anywhere.

He was appreciated by his colleagues not only for his energy and willingness to work for the profession and the public but also for his integrity and fair judgment. To him expediency was no argument—the end never justified improper means. He always strove to see both sides of any question and detested prejudice. His friends were in all walks of life and of all creeds. His inability to turn a deaf ear to any appeal made him a legend amongst the organisers of charitable bodies; his long service to the Homes for aged and ailing nurses at Hermanus and Clareinch and their Trust Fund bear eloquent testimony to his deep interest in the welfare and status of our sister profession. His ability as a teacher reflected the breath of his own education and tastes, and his students and house surgeons indirectly gained much from his wide travels.

One's admiration and affection for him was only increased—if that were possible—by his brave acceptance of the deterioration in his health. To a spirit so vigorous and vital, his physical decline must have been a great trial; he bore it with little resentment and, even to the end, his delicate sense of humour never failed.

To have had his friendship and confidence has been a rare and deeply valued privilege and his example an inspiration. *R.I.P.*

THE COLLEGE OF PHYSICIANS AND SURGEONS OF SOUTH AFRICA

It is announced that the College of Physicians and Surgeons of South Africa was duly registered on 21 July under the provisions of the Companies Act, and thus the work of several committees, extending over a period of years, has been brought to fruition.

The objects of the College are well known to the medical profession and are in general the same as those of similar Colleges established overseas.

Pending the election of the first Council of the College in about a year's time, a Steering Committee representative of all parts of the Union of South Africa, and nominated by a meeting of the Founders of the College held in Johannesburg in May of last year, will now take up the necessary preliminary work to enable the College to begin to function. In the meanwhile, for a period of six months applications will be invited from medical practitioners to join the College as Associate Founders.

Further announcements and communications to individual medical practitioners may be expected in the course of the next few weeks after the Steering Committee has been able to hold its first meeting.

BOOK REVIEWS : BOEKRESENSIES

AIDS TO MEDICAL TREATMENT

Aids to Medical Treatment. By T. H. Crozier, B.Sc., M.D., D.P.H., F.R.C.P. Third Edition. Pp. 536. London: Baillière, Tindall and Cox. 1954.

Contents: 1. Chemotherapy: Antibiotics. 2. Infectious Diseases. 3. Tropical Diseases and Helminthic Infestations. 4. Conditions due to Physical and Chemical Agents. 5. Deficiency Diseases. 6. Diseases of the Digestive System. 7. Diseases of the Liver. 8. Diseases of the Peritoneum. 9. Metabolic Diseases. 10. Diseases of the Ductless Glands. 11. Diseases of the Blood. 12. Blood Transfusion: Intravenous Alimentation: Salt and Water Balance. 13. Diseases of the Kidneys. 14. Diseases of the Cardiovascular System. 15. Diseases of the Respiratory System. 16. Diseases of the Nervous System. 17. Diseases of the Joints. 18. Psychological Medicine. 19. Skin Diseases. 20. Medical Nursing. 21. Diets used in Medical Treatment. Index.

If this volume is used for immediate reference in the wards and not for reading in the study, it escapes the objection to most of the

'Aids' books that they do not encourage the student to think for himself. It, then, has to stand comparison with similar pocket-books, notably the American 'Medical Management'.

This book is simple yet surprisingly full. It seems to be completely up to date for students' needs and there is very little dead wood. Certain treatments such as antibiotics and intravenous fluids are given separate sections, which saves repetition and allows more space for consideration of principles of complicated therapy. One might suggest that this policy should be extended; e.g., in the present edition the description of anticoagulants under 'coronary occlusion' is largely repeated under 'pulmonary infarction'.

It is irritating to come across such statements as 'Smith is using X treatment' without any other guide to the publication concerned. Although there is not space to append the reference, the year of publication should be given so that it can be looked up in periodical indexes and abstracts. One reference *is* printed in the book—to an excellent key article on fluid therapy. The student might profitably be given reference to a few other articles.

The book is a safe guide, but exceptions are noted in three places:

(1) Page 175. The need for immediate blood transfusion in haematemesis is not adequately stressed.

(2) Page 285. The 'danger level' of serum potassium is given as 10 m.Eq./L.

(3) Page 361. Morphine, though admitted to be risky, is recommended for status asthmaticus.

A.S.T.

BRITISH OBSTETRIC AND GYNAECOLOGICAL PRACTICE: VOL. II GYNAECOLOGY

British Obstetric and Gynaecological Practice. Vol. II. Gynaecology. Edited by Sir Eardley Holland, M.D. (Lond.), F.R.C.P., F.R.C.S., F.R.C.O.G. and Aleck Bourne, M.A., M.B., B.Ch. (Cantab.), F.R.C.S., F.R.C.O.G. Pp. 841 + xii, with 363 illustrations and VIII plates. 95s. London: William Heinemann Medical Books Ltd. 1955.

Contents: 1. Reproductive Cycle. 2. The Development of the Ovaries and the Female Genital Tract. 3. The Menstrual Cycle and Sex Hormones. 4. Physical Examination and Methods of Diagnosis. 5. Disorders of Menstruation. 6. Puberty and the Menopause. 7. The Vulva. 8. The Vagina. 9. The Cervix Uteri. 10. The Corpus Uteri. 11. The Fallopian Tube. 12. The Ovary and Broad Ligament. 13. Pelvic Infection. 14. Genital Tuberculosis. 15. Endometriosis. 16. Genital Prolapse. 17. The Vesicovaginal and Allied Fistulae. 18. The Urinary System in Relation to Gynaecology. 19. Fertility, Infertility and Sterility. 20. Disturbances of Sexual Function. 21. Intersexual Conditions. 22. Gonorrhoea and Syphilis in Gynaecological Practice. 23. Postoperative Complications. 24. The Psychiatry of Gynaecology. 25. Medico-Legal Aspects of Gynaecology. Index.

This is the gynaecological part of a two-volume British reference work edited by Sir Eardley Holland and Mr. Aleck Bourne. The 'Gyneacology' was edited by the latter and written by 21 contributors from the United Kingdom. It has to be emphasized that this is a British Practice' and 'represents the general pattern of the evolutionary result of about a century of progress'. There are two useful chapters by experts on the psychiatric and the medico-legal aspects of gynaecology.

This is a valuable addition to British publications on the subject, and the editors are to be congratulated on their contribution. It is a volume of the finest quality, which is a pleasure to handle and read, and the illustrations are an outstanding feature.

Special reference may be made to the chapter on the cervix, most of which is devoted to carcinoma. It is over 100 pages in length and contains over 100 beautiful illustrations which demonstrate various histological and cytological features in a striking manner. The effect of irradiation on the cell is presented and different points of view about explanation are ably and clearly set out. The student who has mastered this chapter would be well informed on the present state of our knowledge of the subject of the cervix and carcinoma cervicis.

It is easy to be critical about such a work, and it is appreciated that pathology is only a subsidiary facet of the subject matter. However, because the whole policy of the book leads to a sound balance in presentation and judgment, the following criticisms may be valid.

The picture of a primary carcinoma of the vagina is not convincing, and one could have hoped that the author had been more thoughtful about such masses often proving to be secondary to cervical cancer. Thus the remarkable rarity of primary vaginal cancer is not dealt with. The same applies to primary cancer of the Fallopian tube, but here the author himself is obviously under the impression that the condition is unique. The status and frequency of endometriosis is not reflected, and the writer merely gives a scholarly account of the disease on traditional lines. The omission of lymphopathia venereum is open to criticism; it deserves a place if endometriosis is given so much attention.

This work has not as its main aim a disposition of recent advances. It deals with British gynaecological practice and exhibits maturity, sound judgment, and a high quality of attractive writing. It will be greatly valued by senior students.

O.S.H.

MEDICAL HELMINTHOLOGY

Manual of Medical Helminthology. By C. J. Hackett, M.D. F.R.C.P. (Pp. 330+ix. 18s. 6d.) London: Cassell & Company Ltd. 1954.

Contents: Part (I). Introduction to Helminthic Diseases. 1. Trematoda. 2. Cestoda. 3. Nematoda. 4. Clinical Manifestations of Helminthiasis. 5. Diagnosis. 6. Treatment. 7. Prevention. Part (II) Trematoda. Part (III) Cestoda. Part (IV) Nematoda. Charts 1-4. Index.

This small volume deals with Helminthology applied to Medicine. It came into being as a result of the careful preparation of summarized accounts of disease accompanying exhibits in the Wellcome Museum of Medical Science, and the author is to be congratulated on the production of a most attractive, informative, concise yet readable, manual.

Very few subjects in medicine can tolerate this form of condensation, but here is one where, with the skill of the author and the artist, nothing is lost by this method of presentation. The text starts with an introduction to the general characteristics of the Trematoda, the Cestoda and the Nematoda, followed by more detailed accounts of the various species and the diseases which they produce. Each infection is dealt with under the headings of morphology, life-cycle, epidemiology, pathology, clinical diagnosis, prevention and treatment.

The author regrets that expense rules out the inclusion of many figures but despite this he has been able to present 40 or so excellent line drawings illustrating the various morphological features and comparing them with those of closely similar helminths, thus making identification all the more simple.

This book has not been published for the use of the specialist; it has been presented at the postgraduate level for the practitioner, who will find a wealth of diagnostic clinical and therapeutic information within it.

A.K.

MEDICAL ELECTRONICS

Medical Electronics. By G. E. Donovan, M.D., M.Sc., D.P.H. (Pp. 215+x, with illustrations. £1 14s. 6d.) London: Butterworth & Co. (Publishers) Limited. South African office: Butterworth & Co. (Africa) Limited, Durban. 1953.

Contents: 1. Introduction. 2. Matter and Energy. 3. X-rays. 4. High-energy Accelerators. 5. Electronic Sterilization. 6. Isotopes. 7. Medical Uses of Radioactive Isotopes. 8. Photo-electric Cells and their Medical Applications. 9. Image Convertors. 10. Medical Television Methods. 11. Medical High-speed Photography and Stroboscopic Illumination. 12. Diathermy. 13. Some Medical Radio-frequency Methods. 14. Electronic Counters. 15. Heart Ratemeter and Anaesthetic Flowmeter. 16. Electron Miscroscopy. 17. Ultrasonics. 18. Electrometers. 19. Transducers. 20. Medical Amplifiers. 21. Cathode-ray Oscillograph. 22. Direct Recorders and Time Markings. 23. Sound. 24. Recording Methods. 25. Electrocardiography. 26. Vectorcardiography. 27. The Amplification and Recording of Heart Sounds. 28. Phonoelectrocardioscopy. 29. Pressure Measurements. 30. Recording Eye Movements. 31. Electronic Stimulators. 32. Electromyography and Nerve Action Potentials. 33. Electroencephalography. 34. Servo-mechanisms. 35. Communications. 36. Cybernetics. 37. Conclusion. Index.

This work fills a need in that no book has as yet been published which covers the whole field of medical electronics. While the subjects discussed are of necessity only dealt with in their bare essentials, as the field is too vast for detailed descriptions of techniques, apparatus, circuitry, etc, there is nevertheless a large amount of information contained in the book.

A worker in the field of electron microscopy, for example, will learn nothing new from the section describing this technique. He will, however, learn something from the section on colour radiography, or image converters. The radiologist might not learn anything new about his field, but will surely learn from the sections on cybernetics or electro-encephalography.

In the section on Isotopes these elements could possibly have been more fully discussed as regards their clinical applications, limitations and dangers. The chapter on Cybernetics suffers as a result of brevity, and could have been more fully presented. Too few opportunities are afforded us for learning more about this little-known but fascinating branch of electronics and medicine.

The section devoted to electronic counters, e.g. blood counters, as well as other methods of clinical and laboratory investigation where the factor of human error is important, is but slightly covered. This omission, I have no doubt, will be rectified in the next edition of this book, as more information is forthcoming from workers in this field.

Notwithstanding these minor points, which are unavoidable in a book of this nature, the work is most interesting and informative. It is a timely addition in a medical world where advances in any field are likely to be, if not wholly dependent upon the physicist and the electrical engineer, at least a result of the closest cooperation between the clinician, engineer and physicist.

J.S.

MEDICAL EMERGENCIES

Emergencies in Medical Practice. Edited by C. Allan Birch, M.D., F.R.C.P. Fourth edition. Pp. 610 + xii, with 143 illustrations, 9 in colour. 32s. 6d. Edinburgh and London: E. & S. Livingstone Limited. 1954.

Contents: 1. The Emergency Bag. 2. Acute Poisoning. 3. The Hazards of Medical Procedures. 4. Acute (Non-Surgical) Abdominal Catastrophies. 5. Other (Non-Surgical) Abdominal Emergencies. 6. Medical Emergencies in Obstetrics and Gynaecology. 7. Respiratory Emergencies. 8. Cardio-Vascular Emergencies. 9. Emergencies in Blood Diseases. 10. Fits, Faints and Unconsciousness. 11. Neurological Emergencies. 12. Psychiatric Emergencies. 13. Medical Emergencies in Diabetes. 14. Medical Emergencies in Other Endocrine Disorders. 15. Medical Emergencies in Renal Disease. 16. Medical Emergencies in Infancy and Childhood. 17. Emergencies in Infectious Fevers. 18. Emergencies in Tropical Medicine. 19. Emergencies in Industrial Medicine. 20. Medical Emergencies at Sea. 21. Medical Emergencies in the Air. 22. Ophthalmic Emergencies. 23. Emergencies in Skin Diseases. 24. Emergencies during Anaesthesia. 25. Post-Operative Medical Emergencies. 26. Bites and Stings and Miscellaneous Emergencies. 27. Medico-Legal and other Non-Clinical Emergencies. 28. Practical Procedures. Appendix I, II, III, IV and V. Index.

This book uses a generous definition of 'medical' (as can be seen from the chapter headings) and of 'emergencies' (aiming to include all reasonably common conditions that *can* present as emergencies). But although it deals with medical complications of anaesthesia and the post-operative period, the only surgery in it is the removal of foreign bodies from the eye.

The systematic chapters were written by 21 different specialists. The editor wrote the remaining 10 and these, plus the chapters on emergencies at sea, in industry, and in the air, comprise the main interest of the book. Here is assembled much useful, varied information which is not otherwise available in any one book. Among many valuable topics, the demonstration of the 'Nielsen' (incorrectly spelt as 'Neilsen') and other methods of artificial respiration is particularly to be commended for its clarity.

Though most of the systematic chapters are sound, they are seldom distinguished and not very up-to-date. The chapter on cardiovascular emergencies is weak and under Blood Diseases one is surprised to read, 'Blood transfusions may be needed if the haemoglobin is very low—say below 3·7 g.%'.

On page 187, line 24, 'pneumococcal' should read 'pyogenic'.

The book might be described as a medical counterpart of Pye's *Surgical Handicraft*, which it also resembles in its format. It should be of definite value to the younger doctor.

A.S.T.

RHEUMATIC DISEASES

Textbook of the Rheumatic Diseases. Miscellaneous Authors. Edited by W. S. C. Copeman. O. B. E., M.D., F.R.C.P. 2nd Edition. (Pp. 754+viii. With 464 illustrations. 52s. 6d. Edinburgh and London: E. & S. Livingstone Ltd. 1954.

Contents: 1. Introductory Note on the Nomenclature and Classification of the Rheumatic Diseases. 2. Historical. 3. Pain. 4. The Anatomy and Physiology of Joints. 5. The Physical Environment and Rheumatic Disease. 6. The Adrenal Hormones. 7. Rheumatic Fever. 8. Chorea (St. Vitus's Dance). 9. Rheumatoid Arthritis. 10. Still's Disease. 11. Osteo-Arthritis. 12. The Rarer Arthritic Syndromes. 13. Spondylitis. 14. Gout. 15. Non-Articular Rheumatism. 16. Brachial Neuralgia. 17. Sciatica. 18. The Differenital Diagnosis of Rheumatism. 19. Special Pathology of the Rheumatic Diseases. 20. Clinical Pathology of the Rheumatic Diseases. 21. The Radiology of the Rheumatic Diseases. 22. Radio-therapy in the Rheumatic Diseases. 23. Physical Medicine and Rehabilitation. 24. Hydrotherapy and Spa Treatment. 25. Principles of the Orthopaedic Treatment of Arthritis. 26. Special Problems in the Orthopaedic Treatment of Arthritis. 27. Psychiatric Aspects of the Rheumatic Diseases. 28. Social and Industrial Aspects of Rheumatism. 29. Statistics of the Rheumatic Diseases. Index.

This text-book, written by numerous distinguished specialists, is the best British symposium on rheumatology available at present, though not perhaps of so nigh an academic standard as some American text-books. It seems unnecessary to continue to discuss the merits and disadvantages of nirvanol or fever therapy in Sydenham's chorea, when neither is in common use any longer. There is still no proof that tenosynovitis crepitans is in any way related or due to oxaluria or to the deposition of oxalate crystals in tendons. Nor can it be accepted that the administration of cod-liver oil 'should improve calcium metabolism' in ankylosing spondylitis. It is disappointing to find such scanty information on the important connective-tissue group of diseases which figure so prominently in modern rheumatology. The critical reader cannot help forming the impression that, although some of the chapters are meticulously written and thoroughly up-to-date, others have been the subject of hasty or scanty revision since the first edition in 1948. However, with these limitations, the text-book remains well worth reading.

M.H.

MIDWIFERY FOR MIDWIVES

Midwifery. A Textbook for Pupil Midwives. By Aleck Bourne, M.A., M.B., B.Ch.(Cantab.), F.R.C.S., F.R.C.O.G. and Mary Williams, S.R.N., S.C.M., M.T.D. Pp. 384 + viii with 112 illustrations. 20s. London: J. & A. Churchill Ltd. 1955.

Contents: 1. Anatomy. 2. Physiology. 3. The Ovum-Placenta, Membranes and Liquor Amnii. 4. The Foetus. 5. Microbes-Inflammation-Antiseptics. 6. Changes in Mother during Pregnancy. 7. The Care of Pregnancy. 8. Pyelitis, Cystitis, Retention of Urine. 9. Haemorrhage in Early Pregnancy. 10. Haemorrhage in Late Pregnancy. (Antepartum Haemorrhage). 11. Toxaemia of Pregnancy. 12. Physiology of Labour. 13. The Mechanism of Labour. 14. Management of Normal Labour. 15. Malpresentations. 16. Multiple Pregnancy and Prolapse of Cord. 17. Contracted Pelvis. 18. Delay in Labour. 19. Obstructed Labour. 20. Portpartum Haemorrhage. 21. The puerperium. 22. The Abnormal Puerperium. 23. Obstetric Shock, Sudden Death, Insanity. 24. The Newborn Child. 25. Common Disorders of the Neonatal Period. 26. The Premature Baby. 27. Breast Feeding—Artificial Feeding. 28. The Rules of the Central Midwives' Board.—Section E. 29. A Short History of Midwifery. 30. The Midwife in the National Health Service. Index.

This text-book is the successor to M. Bowme's *Midwifery for Nurses*. The present edition has been almost entirely rewritten by Aleck Bourne in conjunction with the matron of a large obstetrical hospital.

The chief value of this book lies in the chapters on Anatomy and Physiology, which prepare the way for the understanding of the normal and abnormal in Midwifery. A little more detail on the physiology of ovulation and menstruation would enchance the interest and understanding of the subject. There is a well illustrated and very clear description of the development of the placenta; the early development of the ovum is, however, described very briefly.

Haemorrhage, both antepartum and postpartum, is dealt with at length. The suggestion that, where the patient is in labour and there is repeated haemorrhage in placenta praevia or accidental haemorrhage or the patient's condition causes alarm, the midwife should rupture the membranes and bring down a leg is questionable. It is not permissible in South Africa, and it will generally be agreed that where there is haemorrhage the patient should be treated on general lines and there should be no active interference by the midwife. Vaginal packing should not be mentioned. Postpartum haemorrhage is discussed in full detail, and this section is valuable.

The midwife should find a good deal of useful information in the section devoted to the infant. The keynote here is common sense.

The chapter on asphyxia has been brought up to date. Lobeline is still recommended, although many paediatricians doubt its usefulness; in fact, some consider it to be actually harmful.

An interesting addition to this text-book is a short résumé of the history of midwifery.

The book is well set out and written in an interesting manner; it will no doubt prove to be of much value for pupil midwives.

T.St.V.B.